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TOBACCO.

ITS HISTORY—USES—MODE OF CULTIVATION—GENERAL MANAGEMENT, AND ITS COMMERCIAL STATUS.

Tobacco was no sooner made known than it was sought after with the greatest avidity by the inhabitants of every part of the civilized world. Kings and peasants, men and women eagerly received it, and became accustomed to and fond of its use, either in chewing, snuffing or smoking it. It operates upon the nervous system as a moderate stimulant. By the use of it persons are enabled to endure hunger for a long time. It calms and assuages the passions, mollifies pain, is a sweet restorer to the mind; yet when used in excess, like opium it becomes pernicious. It is also used extensively in medical practice. It is a very valuable medicine in the treatment of diseases affecting the inferior order of animals, such as cattle, horses, hogs and sheep. It is a plant which seems peculiarly to be fitted for the enjoyment, as a luxury, of the poor, and would be much more extensively used in Europe, were it not that those who control the governments seem to take a pleasure in deriving revenue from all those articles which can contribute to the gratification of the poorer classes.

Were it for nothing else, as one of the most powerful manures, it should be cultivated. Ten thousand pounds of cured tobacco, for instance, properly disposed in a heap of other matter, which of itself would be comparatively of little value, (as leaves, sawdust, or simple corn-stalks,) and made into a compost heap, would enrich so large a heap of these otherwise worthless materials, that the heap when made would well pay for the growth of that amount of this valuable plant.

The great agricultural writer, David Low, says of tobacco: "It is known, that the use of this plant, seemingly so nauseous, has, in spite of all opposition, taken root as it were in every country, and become apparently essential to the comfort of the inhabitants." It was originally discovered in Asia; it grows in all the temperate zones up to a high northern latitude. It is grown to some extent in all the States of the American Union, and in many of the countries of Europe. Some claim for the discoverer of this plant, Fernando Cortez, in Yucatan, and say he was the first to send some plants and seed to Spain. There is no doubt that it is indigenous to the region of South America, Texas, and the southern portion of the United States. It grows wild in profusion on the Red River banks. It was never much in vogue, or cultivated to any extent until after the discovery of America, when it, with the potato and other like vegetable productions of this new clime, were sent to Europe to be tested as fruits of the great Discovery!—and proved to be exhaustless treasures to the human race, supplying man with wealth, happiness, comfort, food and pleasure.

Tobacco is grown to a large extent in Europe. Russia, Holland, Belgium, Wallachia, Naples, Sardinia, Italy, Prussia, Wurtembergh, Hanover, Grand Dutchy of Baden, and of Hesse and Brunswick, Nassau, Bavaria, and Electorate of Hesse, combined, grow annually 60,000,000 lbs. of this great commercial weed.

In Hungary it is extensively cultivated and Hungarian smoking tobacco is quite famous. In Spain it is not permitted to be raised except in four provinces where it is extensively cultivated as a privileged plant, and is a great source of revenue to the State as well as of profit to the planters thus favorably protected. In Sweden a small quantity is grown. Portugal allows it to be grown only on the Azore Islands.

But all European tobacco is of a very inferior quality, and requires a mixture with American tobacco to give it that odor, taste and strength which commands a ready sale.

In Europe, in many situations, it grow to a greater size, and yields more pounds to the acre than it does on most of the plantations in the United

States. It is grown in Cuba—so celebrated for the odorous species of this plant, from which are manufactured the costliest cigars and cigarettes that are to be found in the markets of the world. Wherever civilization is or has left its ameliorating influences it is grown, except in England and such countries as follow her grinding policy, of making such articles of merchandise a chief source of revenue, thus true to her policy of being the queen of commercial nations, compels her people to pay into her coffers ten times the real cost of the article for the privilege of its use. From such an oppressive and really unjust course toward her own subjects and to her friendly neighbors who produce the tobacco, innumerable evils spring, which we may more fully enlarge upon before we close this treatise upon tobacco in all its bearings, as the second grand staple product of this country, in furnishing the medium of exchange between us and other nations, and an important element in regulating the balances between importations and exportations, being itself so much gold wherewith to settle our foreign debts.

The amount grown of tobacco in the United States in 1860 was 434,209,461 pounds, and in 1870, 262,735,341 pounds. In 1860, it was grown chiefly by slave labor, and the product was steadily increasing in amount, while the prices were low, only about half of what they are now, when they are far below what they should be, if we consider what an amount of labor and time is expended upon this product from the sowing of the seed to its presentation in the market. From a careful collation of statistics we think the crop of 1872 exceeds that of 1869 by 50,000,000 pounds, and will continue to increase. The domestic consumption is immense, and the exports of manufactured tobaccoes have increased annually since the restoration of peace, in spite of the enormous internal revenue tax which has been imposed on this source of industry.

We come now to its *Culture*.

SELECTION AND PREPARATION OF SOIL.

A rich loam is the best soil for tobacco plants.—The spot selected for a bed should be the south side of a gentle elevation, and as well protected from winds as possible by woods or shrubbery.—The land should be warm, mellow, and well pulverized. If bushes can be conveniently obtained, after the ground has been thoroughly raked off, they may be laid on thickly and burned, so as to heat the ground and leave a thick coat of ashes upon it. Since the introduction of guano, burning has not been much practiced. Rake off the leaves and litter, dig deep with grubbing hoes, chop back and rake; continue to chop with weeding hoes and to rake, until every clod, root and stone is removed and the bed presents the appearance of a well-prepared hot-bed. After the first digging sow Peruvian guano, at the rate of 400 pounds per acre, and work it in. Just before the last raking sow at the rate per acre of 50 pounds of guano and one peck of plaster, well intermixed before sowing. If no guano is used, manure heavily with leached ashes and well rotted stable manure or sheep manure.—For every 10 square yards mix one gill of seed with half a gallon of plaster or sifted ashes, and sow evenly, in the same manner as gardeners sow small seeds, only with a heavier hand; roll with a hand roller, or tread down the bed with the feet. If the seed be sown before the middle of March the bed should be covered with bushes, free from leaves, unless they be pine brush, which is the best covering. Sow any time during winter when the land is in order. The best time is from the 10th to the 20th of March, although it is safest to sow at intervals, whenever the land is in fine working order. Never sow unless the land is in good working order; if too wet it will be work thrown away. The beds must be kept perfectly free from weeds and grass, which must be picked out by the hand.

After the plants are up they should receive a top-dressing, about once in ten days, of well rotted and pulverized horse manure, or a mixture of equal parts of stable manure, ashes, plaster and vegetable mould, with soot and sulphur, say four pounds of the latter to four bushels of the mixture. This and other such mixtures have been found efficacious in arresting the ravages of the fly, it being distasteful to the insect; and, from the frequent dusting of the plants, increased vigor is imparted, enabling the plant the sooner to get out of that tender state during which the fly is most destructive to it.

The fly is a small, black insect, somewhat like the flea, and delights in cold, dry, harsh weather, but disappears with the showers and hot suns of opening summer. If possible, the plants should stand in the beds about one inch apart, and if too thick they must be raked when most of them have become as large as a five cent piece. The rake proper for this purpose is a small wooden rake with iron teeth, three inches long, and slightly curved at the points. The teeth are flat, three-eighths of an inch wide, and set half an inch apart. The points and edges of the teeth should be sharp.

TRANSPLANTING THE PLANTS.

The soil best adapted to the growth of tobacco is a light, friable soil, or what is commonly called a sandy loam, not too flat, but rolling, undulating

land, and not liable to overflow in excessive rains. New land is far better than old. Theory and practice unite in sustaining the assertion that ashes are the best fertilizer for tobacco. Where they are not to be had, and the land requires manure, a mixture of one-third saltpeter to two-thirds gypsum, well mixed, may be applied at the rate of 300 pounds per acre. It need scarcely be said, that the richer the soil, the more remunerative will be the crop—in weight, texture and color. The land intended for tobacco should be got in nice order by the latter part of May, and when the plants are of a good size for setting out, should be "*scraped*," which is done by running parallel furrows with a small one-horse plough, two and a half or three feet apart, and then cropping these again at right angles, preserving the same distance, which leaves the ground divided into squares of two and a half or three feet. The hoes are then used to form the hills, by drawing the two front angles of the square into the hollow, or middle, and smoothing them on top, and patting down by one blow of the hoe. The furrows should be run shallow, for the hills should be low, and well levelled off on the top, and, if possible, there should be a slight depression near the centre, so as to collect the water near the plant.—After the first rain, after the land has been thus prepared, the plants should be removed from the seed beds and carefully planted in the hills. The smaller or weaker hands, with baskets filled with plants, precede the planters and drop the plants on the hills. In drawing the plants from the beds, and in carrying them to the ground, great care should be taken not to crush or bruise them.—When drawn they ought to be put in baskets or barrels, if removed in carts, so as not to have many in a heap together. The plants should never be set deeper than they stood in the bed. The operation is performed by taking a plant in the left hand and inserting the root in a hole made in the centre of the hill with the right. The soil is well closed about the root by pressing it with the forefinger and thumb of the right hand, on each side of the plant, and taking care to draw it well about the bottom of the root. If sticks are used in planting they should be short, and the planter should be careful not to make the holes too deep. The plants ought to be very nicely set, for if the roots are put in bent up or crooked the plant may live, but will never flourish, and perhaps, when too late to replant, will die, and then all the labor will have been lost.

CULTIVATING THE PLANTS.

In three or four days the plants may be weeded out—that is the hoes are passed near the plants, and the hard crust formed on the hills pulled away, and the edges of the hill pulled down into the furrow. This is easily done if performed soon after planting, but if it is delayed, and the ground gets grassy, it will become a troublesome operation.—After weeding out, a teaspoonful of plaster, or plaster and ashes mixed, should be put on each plant. In a few days, say a week, run a small plough twice between the rows, with the landside towards the plants. This is a delicate operation, and requires a steady horse and careful ploughman, for, without caution, the plants will be rooted up, covered over, or killed, by loosening and exposing the roots. In a week after the tobacco cultivator or shovel may be used. Either implement is valuable at this stage of the crop. Once between the rows is often enough for either shovel or cultivator to pass. The crop can be greatly increased by their use in stirring the soil once in ten days for four or five weeks, going each time across the former cultivation.—Any grass growing near the root of the plants may be pulled out by the hand or cut off by the hoe.—As soon as the tobacco has become too large to be cultivated without injuring the leaves by the whiffletree, the hoes should pass through it, drawing a little earth to the plants where required, and leveling the furrows made by the shovel or cultivator. Care should be taken to leave the land level, for level culture is generally the best. When the plants begin to blossom, select the best for seed.—One hundred plants will furnish abundant supply of seeds for a crop of 40,000 pounds. All the others should be topped before they blossom—indeed, as soon as the blossom is fairly formed. It should be topped down to the leaves that are six inches long, if early in the season; but if late, top still lower. If the season is favorable, in two or three weeks after a plant is topped it will be fit for cutting; yet it will not suffer by standing longer in the field. The suckers are now to be pulled off, and the ground leaves saved. The suckers ought to be pulled off before they get two inches long, as they spring out abundantly from each leaf where it joins the stalk. Ground leaves are those at the bottom of the stalk, which become dry, and should be gathered early in the morning, when they will not crumble.

[TO BE CONTINUED.]

A shoot of a peach tree, one-tenth of an inch in diameter, contains ten thousand minute tubes for the flow of sap—and one an inch in diameter a million.

Dwarf apple trees, well attended, have the advantage over standards, in that three or four hundred may be planted on an acre, while there is room for only forty or fifty standards.

Agricultural Calendar.

FARM WORK FOR FEBRUARY.

If the weather prove harsh, cold, or very wet, the farmer will have but little to do except looking after his stock, cutting wood and getting fence material in place; and the planter will be busy with his tobacco, should it be mild as well as wet. But we often have a long spell of fine weather this month, and if we do it should be availed of to do all the plowing possible—it does put forward spring work so much.

ICE.

We will not offend any one by saying he has not secured his ice after such a splendid opportunity as was presented before New Year; but if there should be one so unfortunate we advice him to embrace the first freeze, or next summer, when the dog-star rages, *he* will likely be *mad*, and with nobody to blame but himself.

PLASTER.

We hold the opinion, and believe we are sustained by many practical, observant planters, that this is the best month in the year to sow plaster on clover. Sow two bushels per acre on every acre in grass, and one, with three of salt, on every acre of grain. If you have it not at hand, get it as soon as possible, and sow at every favorable opportunity; but not, as is the practice of some, when the wind blows a gale, unless you desire to help your neighbor by proving to him the efficiency of this remarkable plant food or stimulant, which ever it be, for we are not sure that the learned agricultural doctors have satisfied themselves which it is, or whether it is not both. If we are not mistaken it is the practice of Mr. Waring, of Ogden Farm, to sow it on a light snow, when the ground is firm, so the wheels of the wagon will not sink.

WOOD

Ought to be cut for next year, before this winter is over. Dry wood is every way more economical fuel than when green. At least a third more can be hauled by the same team. And where there are negro laborers, your fence rails will be used by them to kindle the green wood. What an amount of plank and fencing stuff would be saved in this region if dry wood was used instead of green! We know this fact from observation dearly bought.

TOBACCO.

It is always advisable to sow one or more beds in February, if it can be done, and particularly when none were sown in January. The stripping and conditioning should be forwarded as fast as it is possible, so as to get the crop in market early, to be ready to meet any sudden rise, and be ready to meet any demands you might have on it, besides, you are getting it off your hands before the present year's crop begins seriously to demand your close attention; it is an old saw, "be off with your *old* love before ye be on with the *new*."

OATS.

Should the ground get in a proper condition sow oats and clover seed. The fact is beyond dispute, the earlier this crop is sown the better the yield, and heavier the grain. The land should be highly manured or fertilized, and then well prepared.—Plow in the oats about three inches deep; harrow in the clover seed, and if the land be sandy, roll. We saw a crop put in this month, and a snow came and laid on it for three weeks, which brought the 10th of March. Soon after the snow disappeared they made show above ground, and were three inches high before any other oats were sown in that region. The result was a splendid crop, although the land was inferior to most of the lands where the later sown oats proved a comparative failure. We do not say that this month is the best time for all lands, but we merely wish to say that the earlier a farmer sows his oats, no matter where he lives, the better the crop is likely to be. Too little attention is given to preparation of the ground for this crop. One of our valued correspondents last year, though the drought was so ruinous to the oat crop everywhere, made an average crop of 25 bushels, standard weight, per acre, on a considerable field, and his fertilizer cost less, because home-made, than it did his neighbors, who did not make half a crop. He thinks it was owing to thorough preparation, and getting them in the ground in time.

FENCING.

Do all the fencing that circumstances will allow, and let us advise you to be sure that it be well done. A poorly built fence is the most provoking and expensive thing about a farm. Once well built it will need no repair for years, but if it be a worm fence, the corners should yearly be examined to see that the support of stone or wood on which the corners rest is in place, and not sunken into the ground.

STOCK.

Cows about to calve must be well looked after. Breeding ewes ought to have a moderate supply of turnips and hay, with access to salt. Clover hay is best for sheep. In cold or rainy weather, and when snow is on the ground, sheep require a gill of corn per day, besides the hay and turnips, unless they are fat, in that case corn is too heating, especially for ewes in lamb. Turnips, sliced, seasoned with salt and corn meal, is capital food. Look

well to your sheep, for wool now commands a high price, and mutton is worth their rearing at even $10 per head, though our butcher makes us pay much higher than that for his $10 mutton. No stock pays the farmer for his care and attention so well as sheep. They are every day becoming more valuable. The mammoth Cotswold, the Shropshire and the famed Southdown, are the breeds most sought after now. Fine bucks of either breed crossed on the Merino, and the common country sheep of the South, and a judicious system of breeding pursued, would soon restore to the South the loss of her once beautiful flocks, and supply a great want at present existing in that fair land where green pastures are seen all the year. Should dogs trouble your sheep-folds, scatter around each night a Delaware pone, made of meal and nux vomica, or give them in a concentrated form that stuff which has laid low so many men as well as dogs—*strychnine.* Working horses and cattle require, at this season, liberal allowances, to prepare them for the hard labor they will soon be called on to perform; for we perceive during this month the signs that indicate returning spring—the wood-lark is heard, and the black-bird and robin appear, while the good wife's basket is daily filled with new laid eggs, and

"Already now the snow-drop dares appear,
The first pale blossom of the unripened year;"

Which unmistakable signs of Earth's freedom from the icy chains of winter, are seen and felt by the farmer, and as old Virgil says:

"Joyous the impatient husbandman perceives
Relenting nature, and his lusty steers
Drives from their stalls, to where the well us'd plow
Lies in the furrow, loosen'd rrom the frost."

OXEN.

Corn in the ear is not good for working cattle. Give them fodder and turnips, or what is better, cut hay and corn meal twice a day. A bushel of this mixture, being one gallon of meal to a bushel of hay, sufficiently moistened, will keep them in fine condition, and two will do more hauling than four, when kept in the usual style in this country.

BEEF CATTLE.

If you have any stall-fed beeves, the above is excellent food for them, made a little richer, and will fatten rapidly under such treatment, especially if the card is freely used upon their hides. Oil cake should be given in place of corn meal, once a day. Or it might be given as the noon meal.—Card well, feed high, and if they grow feverish, bleed occasionally, or stop the corn meal, and substitute beets or turnips for a short time, and you will soon have "show beef." The stalls and feeding troughs should be kept sweet and clean, if you wish your beeves to retain their appetite and fatten freely. Their food should be seasoned with salt.

PLANTING TREES.

As this is an appropriate time, we cannot refrain from urging upon the owners of land the propriety and necessity to plant trees—timber and fencing trees. Our forests are daily disappearing, and ere long we shall suffer severely for the present ruinous system of slaying splendid trees to make a tobacco bed, or to enlarge the area of tillable land, which common sense ought to tell us is too large now—that is, there are millions of acres of land lying waste that should be brought into cultivation.

Any time in winter is a good time to plant out trees, if the ground be not frozen. Any time between the falling of the leaf and its renewal in the spring is a good time to plant out Locust, which is so very valuable for posts in fencing, and for timber in buildings. Every farmer should plant out hundreds each year, in the vacant places of his wood lots, along the fences, and in all other spots which would not incommode his tillage crops—they grow rapidly, and do not exhaust the soil like other trees. You rarely ever see the ground poor under an old Locust, however poor it may have been when the tree was planted. In the autumn the beans should be gathered from the locust-pods, boiling water poured on them, and suffered to soak for thirty-six or forty-eight hours, then mixed with a bushel of fine woods' earth, and sown in shallow drills, where they are designed to be grown, cover them one-half inch deep with fine earth, strew over them leaves or straw. In the spring remove the covering, keep them free from weeds, after which they will be no trouble, except to transplant where wanted. The drills should be four feet apart.

Chesnuts sown the same way soon after being gathered would soon supply a fine lot of rails.—Too little attention is paid to replacing our forests as they are cut down. There is great want of timber and fencing stuff already felt in many sections. In a few years a vast annual outlay must be made by our people for fencing and for timber, unless more care is taken to cultivate such trees as are of value, and which are so rapidly disappearing. Let our farmers cultivate and protect the Oaks, the Poplar, and the Walnut for building, and the Locust, the Chesnut and Cedar for fencing material; while the other woods may be made to give place to these, for it will be far cheaper to buy coal for fuel than timber for building and fencing.

Let farmers who have swampy land, which produces only coarse grasses and weeds, remember that such land needs nothing but thorough underdraining to make it a mine of wealth.

GARDEN WORK.

But little can be done this month in the garden, if it was properly put in order, and well cleaned of rubbish before winter. If not, no time is to be lost in doing such preparatory work. Getting in a good supply of manure is important also, and preparing all that is necessary for hot beds and cold frames.

Lettuce, may now be set in cold frames.

Potatoes.—As soon as the soil permits, plant *Early Rose* Potatoes.

Peas.—A few early peas may be planted this month, should the weather be favorable. *Tom Thumb* are best, for they are easily protected, should a cold freeze set in after they are up.

Onions, can be set out for seed.

Onion Seed can be sown—we mean to be understood at all times as referring to this section of our State—at the South, all seeds may be sown from 20 to 30 days sooner than with us, and the same period of time later at the month. We only give our own experience of past years in these suggestions about the garden.

Beets.—We have sown Beets in February and they did well.

Grapes—may be pruned this month.

Currants and Gooseberries—can be trimmed and thinned.

It is important that this month the garden should be put in a state of preparation, so as to be ready for rapid working and seeding next month and April. Seeds should be looked over and a list made of all sorts that may likely be wanted during the year, and procure them at once. Do not put it off until they are needed directly to be planted, or in all probability when that time comes, you will go without them or use some worthless sort that will give no satisfaction to you or reward for all your labor. The same may be said and with more propriety about garden tools and other things necessary for prompt action when they are needed, such as bean poles, stakes for small bushes, pea-brush, trellises for tomato plants and nasturtium, &c., &c.

Garden Tools.—See to these, and that they are in perfect order, or procure them. The most important tools for a garden are a spade, hoes, rakes, a fork, which in most soils that are light enough to be good garden soils, is more valuable than a spade; a garden line and reel, watering pot; measure sticks; shears; grass scythe, or what is better, a lawn mower—hatchet, and roller. There are many other, newly invented labor-saving implements for the garden, but, those enumerated are essential to quick, thorough working of a garden.

Manure.—Besides the compost and stable manure, every garden should have a dressing of plaster, salt and ashes well intermixed. For a garden of an acre, one and a half barrel of the mixture, equal portions, would be enough. As soon as a bed is sown, dress it with this mixture. It can be prepared now ready for use when wanted, if kept dry—all this advice is given supposing that there is a garden to be kept exclusively for vegetables, and which with the lawn and the flower garden would pretty much occupy the time of a first-class man, if he could keep all in proper trim, but in these days, when labor is high and scarce, a better plan can, we think, be adopted by such of our planters and farmers as may not be surfeited with ready money. It is this, and we have found it in several instances to act well, with better vegetables and at little cost or labor. Convert your present garden into a fruit orchard for small fruits and dwarfs and peaches, which can be plowed and worked with horses. Take an acre of rich land, or make it rich and plow deep, put it in fine tilth, and lay it off with drill or plow into rows three feet apart or two feet six inches—you have then 70 rows 70 yards long—and it being in your crop field can be worked like other crops, and the time spent would be little while the vegetables would be superior. This acre ought to produce enough of everything for your own family and for the wants of your employees. We should arrange them thus:

In Melons	3 rows.	In Beets	1 row.
Corn at intervals	9 "	Parsnips	1 "
Potatoes	3 "	Carrots	1 "
Tomatoes	2 "	Spinach	1 "
Peas	3 "	Pole Beans	2 "
Onions	2 "	Snap Beans	1 "
Squashes	2 "	Turnips	1 "
Ochra and Egg-Plant	1 "	Salsify	1 "
		Cucumbers	1 "
		Making	34 "

Celery could be planted in ample time after the potatoes and the peas and snap beans were off the land—and you then would still have left enough ground to give ample space for 3,000 cabbage and cauliflower. Let it be *felt* that what was not required by yourself, would be given to those who helped to work and take care of this garden, but that no one should be privileged to take himself from it one iota, and we feel sure the system would work well. The lettuce, herbs and such trifles could be raised in small beds in the old garden or orchard, where the fruits would be all the finer for proper cultivation with horse power. The flower garden could be curtailed to such a size as would be a work of love, instead of labor, to keep it in order, and the smaller in sige it became, the more beautiful probably it would become, because then there would be room only for the choicest flowers and shrubs. The lawn would under this system require no more care than under the old one, and looked upon as a source for "green soiling," it would pay to keep it well mown, by giving its product of grass each night to the cows in the barn yard.

For the Maryland Farmer.

TO YOUNG FARMERS.—No. XIV.

PLANT GROWTH AND FILTRATION.

In my last number, to my young farmer friends, was briefly presented some useful amusement in art-science for consideration. Herein they will find presented practical yet simple experiments for proving, to some extent, how plants grow, and where they get the elements and nourishment which form their body and organism—experiments which the humblest. with a little care and patience, can perform and test, for themselves if they wish.

Take a small pot or tub ; take some rich, mellow, loamy soil, suitable for growing corn or wheat ; carefully weigh enough to about fill your tub, and put it therein ; make a note of the exact weight of the earth used ; then set out some rank-growing plant or shurb ; such as a geranium, a begonia, or peach or willow tree, or even a grape vine ; or if you choose, plant a kernel of corn or wheat ; then keep the earth suitably watered, so as to keep it growing thriftily, for the season or year ; at least, until considerable size is attained, of as much weight, or more, as the earth in the tub weighed when prepared.

After watching this growth long enough, carefully remove the plant or shrub, roots and all, wasting none of the earth in so doing ; now weigh your plant, and note it down ; then again weigh your earth, when it is as dry as when weighed the first time ; by this means you learn how much, if any, your plant has taken or abstracted from the soil in growing.

If the operation be carefully performed you w ill find that the weight of the soil is not diminished, but is about the same as when you put it in the tub ; but you have found that the young plant or shrub has accumulated about as much weight—perhaps even more—as the earth used weighed at first.

Now, the question arises—where, or from what source did the plant acquire its weight and organic substance, since the quantity of earth seems not to be perceptibly diminished ? The solution of this question, or explanation of the matter, is one of considerable importance to farmers. It is believed by most careful, observant thinkers, that all plants obtain most of their stalks and fruits from the atmosphere ; and that what they need is suitable conditions and moisture for the roots to grow in, and they will appropriate from the air the substance or means of growth and maturity. Constant but moderate moisture is absolutely necessary. And where the soil is loose and mellow to a sufficient depth to permit water freely to pass, there will never be any great trouble from drouth, as the moisture, from below, will surely and constantly rise as the upper soil becomes more dry and warm than the earth is below ; if it be not so hard as to obstruct the rise to the surface. The youthful and intelligent operator can find or think of other experiments to illustrate the above theory, that plants mature, without diminishing the quantity of soil. Study and try, what your reason and ingenuity will suggest.

Another interesting principle or theory, which has an important practical bearing on farm operations, I will here call your attention to : *leaching* as it is sometimes called by fnrmers ; or, as they seem to think, that the manure filters away and goes down through light and mellow soils. Now this is all a mistake, as we will readily show :

Take a box or barrel, and fill it a foot or two deep with sand or loose earth ; then take the filthiest water or liquid you can get, in your barn-yard, and pour pails full of it on to your sand barrel, and examine it as you find it coming through holes in the bottom, and you will find only clear pure water ; and then dig in and examine your sand, and you will also find that *all* the filth and manurial substances have been arrested and held by the earth, within one or two inches of the surface ; no part of the manure leaching or sinking below that depth, into the earth.

It is not the same, nor like leaching ashes, or other substances which partly dissolve or give up their ingredients to the clean water poured out and running through ; in the first case, filthy liquid is put on the earth which arrests and holds all the foul ingredients, leaving the water cleared ; in the in the latter case, clean water is passed through to separate and take a portion of the ashes ; so that there is no such thing as manure running down through the earth and becoming wasted ; try that, my young friends, for yourselves.

One more. Take a tub or half barrel one or two feet deep, with small holes in the bottom ; fill it up with loose, porous earth ; then set into a larger vessel, which has three or four inches depth of water in it ; then let them stand a short time in the sun, or where it is warm ; and notice how soon the water will raise to the top of the loose soil contained in the inner vessel, although its water is much shallower than the top of the inner tub. The water will surely seek and find the surface of the warm, dry earth, though much above its own level, if there be no obstruction. This is why land deeply plowed is less liable to suffer from drouth—water comes up.

Now, try the same experiment, my young friends, with hard packed earth, and see how much water comes up to moisten its heated thirstiness in time of drouth.

Again. Try these experiments with two tubs filled, one packed hard, the other mellow; now pour on plenty of water, and note which lets it quickly run through and off; and which holds the water, in soddened earth, to drown and chill your plant or tree—covering it with moss and mildew; and now you see the results and beauty of sub-soil plowing, and underdraining. Do you see—do you catch it, my young friends, in the orchard, and meadow and wheat field? Then don't scout at theory, till you put it in practice.

LAND MARK.

For the Maryland Farmer.

NOTES ON THE JANUARY NUMBER.

BAD FARMING.

Nothing can be more true, generally, than what is embraced under this head; but I should vary the order somewhat of the "three or four main reasons why good farming is the exception," placing "*too much land for the capital employed upon it*," first in order, the others following: "*want of scientific knowledge, want of labor and want of industry.*"—No one can, at the present day, expect to make farming *pay* without capital to carry along the work thoroughly in all its branches. Neither can one expect to make himself rich, whose all is invested in poor land, or land exhausted, greatly, of its fertility and productiveness, without constant industry, rightly directed: and in order to direct our labor to the greatest success, knowledge is essential. Individual labor, of the farmer himself, is required if we are to rise by farming; or if we wish to make farming "tell," the master must lead the field, having his eye upon his work and workmen; nothing short will tell, to the best advantage, even where we are possessed of every other requisite; we must instil enthusiasm and interest in our help by their possession and our action, or we cannot expect them to take any interest for us, or in the results of their labor for us.

WASTING APPLES.

Professor Wilkinson gives us a valuable article under his "Variety," but under the section of wasting apples his general remarks are of interest to every farmer who may chance to have a surplus apple crop. Yet in his last paragraph he states: "If apples are fed to cows without cooking, they should be *ripe* and *mellow*, and no rotten ones," &c. A neighbor of the writer found himself, last fall, possessed of a large crop of apples, and what to do with them was a study; he could not sell them, neither could he get them made into cider, without carting them ten or fifteen miles, costing more than the cider would be worth. He solved the question for himself thus, the substance of which has been the rounds of the secular and the agricultural press: he had a cow past her prime and nearly dry, or giving only a few quarts of milk per day, feeding in pasture of fall feed. He commenced feeding this cow four quarts of windfalls, *hard*, *sour* and *knotty*, mostly Baldwins and Greenings, these were fed just as they were picked from under the trees; the mess was increased till at the end of the week this cow was eating one bushel per day of as hard and sour apples. windfalls, as ever grew on such trees; the result was the cow began to gain in her milk immediately, till she had gained fifty per cent. So favorable was the result on this cow that he began in the same way to feed all his cows, with equally good results. The milk was tested in every way to determine its quality, and found to be equal, quart for quart, to that made on grass alone. I should have said before that the apples were fed in addition to the feed they got at pasture. The health of the cows remained perfect in all respects; the butter made was as good as if made from grass feed alone, if anything, better.—To determine further the value of the apples he stopped feeding for one week, to his milch cows; the result was they fell off nearly fifty per cent. in quantity of milk; at the end of the week he commenced to feed again, and at the end of the week were giving as much milk as when he stopped the feed of apples. Here the experiment was made with *unripe*, *sour*, *hard* apples, without cooking, and resulted most favorably. Almost, if not every animal, will hurt themselves by overeating a thing they are unaccustomed to, if allowed the chance, while if the same article were fed so as to gradually accustom them to it would result advantageously. Let a cow have a chance at luxuriant grass, and she will over-eat, to her hurt, after having been confined to a rather short pasture.

GIARDINIERE.

MUSIC FOR HORSES.—It is doubtful whether human eccentricity ever went further than in the case of Lord Holland who was contemporaneous with William III. It was his usual custom to regale his stud of horses with a weekly concert. He had a gallery specially erected for the purpose, and he maintained that the music cheered their hearts and improved their tempers.

As the buckwheat season is upon us, the following substitute for greasing the griddle is recommended: Take a turnip, cut in half, rub the griddle with the inner side, and, it is said that, the cakes will come of nice and smoothly, and the housekeeper will be rid of the disagreeable odor of burning fat.

For the Maryland Farmer.

A VARIETY OF STATEMENTS AND SUGGESTIONS ALL IMPORTANT TO THE FARMER.

NUMBER THREE.

The regular series of chapters under the above caption were interrupted, and the place occupied in the December number of the *Farmer*, by my report on *steam plowing at Bloomsdale*, but was resumed in the January number. In again taking the attitude of critic and counsel of that class who need the latter, and desire the former, I feel that I may profitably devote a little space to enlarging on, and describing and applying more in detail, what I have learned, and what has been suggested by an examination of, and in my brief experience with the use of a traction, steam engine as a motor in plowing and cultivating land, and in hauling on common wagon road surfaces, and the adaptability of the same engine as power for a variety of stationary work.

Inferring that all who will read what I am about to write, have read carefully my Report on steam plowing, as it was published in the December number of the "*Farmer*," I shall avoid a repetition of the matter of the Report, and shall enlarge on the adaptibility of steam power to various wants of the producer. As will be remembered, I stated that the only field work which I saw performed by the traction engine, was that of plowing with a gang of surface plows, and hauling on a wagon road and fields; I have since seen a statement by Ald. Mechi, of England, of the effects of subsoil plowing to a good depth, on a portion of his farm in preparing for wheat, the work having been done by Fowler's stationary engine, as long since as 1856.

I am indebted to that very reliable journal "*The Practical Farmer*," of Philadelphia, for the account of Mr. Mechi's experiment in subsoil tillage by steam power.

Mr. Mechi says that "he plowed a portion of a clover ley in the presence of 700 guests in July, 1856, and deeply disturbed the soil and the sub-soil. The result was that, although all the field had long been under good, deep culture, the portion that was thoroughly sub-soiled, showed great improvement in the early growth of the wheat crop, as though it had received an extra dressing of manure; and for five years after, all the crops on this deeper disturbed portion of the field, showed a manifest advantage.

Mr. M. does not state the condition of the subsoil thus tilled, but it is probable that it was free from stones which would obstruct tillage. This condition of soil, whether surface or sub-soil, is more desirable in steam tillage than with the use of animal power. It is not, however, as many suppose, absolutely necessary that land, to adapt it to steam tillage, should be entirely freed from rocks, stones and small stumps, though it is very desirable that it should be so, and the same may be said in the case of the use of animals in plowing. A device is already invented, and is being applied to steam plows, that guards them from injury, in case they come in contact with immovable and invisible obstructions. The arrangement consists of flexible, hinged joints in the frame and beam of the plows, and a "break-pin," which yields to the concussion, and allows the plow or plows striking, to pass over the obstruction without disturbing others of the gang, and without injuring it. The breakage of a break-pin signals the fireman, who is also the plow manager, who immediately stops the engine, inserts a new pin and "away;" only occupying a minute or two to repair the break; yet the time of a motor capable of plowing 10 to 20 acres, or more, per diem, is too valuable even to admit of losing a minute of time that can be avoided, and the day of the iron horse should never be less than from "dawn to dark."

I scarcely need state to the class of gentlemen who read the *Maryland Farmer*, that a large portion of the land of the Atlantic States, particularly that of the Southern States, is naturally free from rocks and stones that would interfere with steam tillage, or that the same is true of the vast prairie regions.

There is also a large area, both along the coast and in the interior, that would only require a small amount of labor and expense, particularly as the gigantic strength of the portable steam engine can now be availed of, in raising and hauling away rocks and stumps, to fit it for culture by its power also.

Since the adaptability of the steam locomotive engine is no longer problematical, for road and field work, necessity will promptly supply the demand for every variety of plow, digger, cultivator and harrow required; we will also have drills and seed, and lime and fertilizer spreaders, &c., to meet all the requirements in tillage.

It is equally possible to make the iron horse harvest crops of every description; thresh and prepare them for, and haul them to market, and at much less cost than it can now be done, and so much more rapidly, that the immense waste, now unavoidable, will all be saved; and withall, manual labor, now so worthless and unreliable, may, through

the adaptability and potency of the engine, be dispensed with to that degree that the number of men required may be obtained of such as will be obedient and profitable; and therefore the most formidable barrier, except, perhaps, the want of capital, in the way of success, in husbandry may be removed. The advantages that I have enumerated are by no means all that may with certainty be accomplished through the efficiency of this new power, but very many more, no less important, will follow as consequences. Space will not admit of my enlarging upon the mention of incidental advantages that must grow out of this power in husbandry, but I may be allowed to mention a few that have seemed impossible to reach hitherto, that are certain to be concomitant with this change, or under the rule of the new motor.

The *fences* that now constitute the most onorous tax, though self-inflicted, all that are unnecessary will be removed.

The *roads* having grades and surfaces unfit for use, will of necessity be improved, and adapted to the tread of the iron horse.

The *crops* will all be marketed without the necessity of every farmer leaving his home, his family and his business nearly one-half of the time, as many now do; which saving alone, will, in thousands of instances, insure that change so desirable and all-sufficient, viz: that of *failure* to *success*.

The *peach* and *apple orchards* need no longer be trimmed up with long, slender trunks, and high, swaying heads, that the horse may pass under their limbs in the cultivation, but may be grown in low, bush shape, and yet be effectually tilled under and around to their very trunks, without effecting the steamer seriously with side draught.

The numerous advantages that would be the sequence of such a change in horticulture, will be apparent to all having experience in the production of these fruits.

BY WHOM AND HOW IS ALL THIS TO BE DONE?

Middlemen have for a long time, and in many countries, seemed ever ready to aid the farmer in dilemma, especially if they are allowed to dictate the terms, and why may not *leading men* be enlisted on proper terms.

It would be folly to suppose that every farmer on farms of ordinary area, would attempt each to incur so enormous an expenditure as would be required to provide a *steam locomotive* for each farm. Neither is it practicable in many districts of 1,000 to 2,000 acres area, in farms of from 100 to 500 acres, to find capital in the hands of the farmers with which to supply the district with the power needed; but when it is once well established that the branches of labor that I have indicated on the farm and on the roads, can be performed with greater dispatch, certainty and economy by the steam locomotive than by animal power, and that producers can well afford to pay a price for having their work done by the new power, that will make the supplying of itinerant locomotives a remunerative business, they will as certainly be supplied as are the threshing and cleaning machines now supplied all over the country. They have been made profitable, both to their owners and to the producer, and the power in question will be more so, and it will be infinitely more profitable.

It is susceptible of being applied to such a variety of purposes, and being needed throughout the year, and unlike animal power, may be used unceasingly; as will be fully understood by every thinking man, it may, in an emergency, be made incalculably valuable.

In plowing clay land, it is well known that there is but a few days between rains that such land can be said to be in just the proper condition to plow or harrow. With an ordinary force of animal power, and with the maximum amount of teams and men that can be profitably kept on a farm, but a small area can be tilled in just the nick of time; but with the steamer, and a proper "*head-light*," the plowing, harrowing, cultivating, drilling, reaping, mowing, &c., may be continued day and night, and that with the two sets of men, only requiring four, who would be able to perform the work of nearly a regiment of men, with two or more horses or oxen to each man, and last, but not least, would be able to do the work of every description in a manner that cannot be reached with animal power.

I have heard several instances where energetic men, with but about $1,000 invested in a thresher and cleaner, and four horses, only working about half the time as itinerant threshers, have earned enough in two to four years to pay for a fair farm, and yet did the work so seasonably and rapidly, and I might add, so well, that the price paid by the farmer was lower than he could afford to do it for himself, to say nothing of the waste of grain by delay, or the gain in having the use of the money when most profitable.

The class of men who had the sagacity to foresee that an investment of one thousand dollars in animals and machinery, in their hands, was capable of earning them a net profit of $2,000 per annum, and they realized it, are just the class who with their accumulated means will, as soon as they have seen what the steamer is capable of doing, invest 5,000 or 7,000 dollars in it, and the necessary appurtenances, even if they are obliged to mortgage the farm to raise the means. With the same indus-

try and assiduity previously applied in the use of the horse power, &c., with the earnings of the more reliable and potent steamer, he will pay for a farm in a year. Outside capitalists will not long allow such a profitable business to be in the hands of a few; they will enter the arena, and the power will soon be supplied to the farmer, lower than he had ever dreamed of securing it, and finally both interests will find a wholesome level, and all will be much more prosperous than the farmer of to-day is under the present system. Now all this, aye, much more, I prophesy will be realized ere long as a sequence of the discovery of the mode of making a traction engine capable of doing, not what we hope will be done, but has already been done.

THE LABORER.

Farm laborers to whom I am personally known will not accuse me of partiality to the farmer in what I have said, but those who know nothing about me, may accuse me of evincing a much greater solicitude for the welfare of the employer than the employed. I will admit that in the statement of my opinions and desires, I have aimed especially at the improvement of the condition of the class who hold the title of the soil, which condition is at present, in numerous instances, such that they are unable to maintain themselves and their own famllies well, much more maintain the laborer and his family, that is, of the worthless class of laborers that I have endeavored to dispense with on the farm. I will admit too that the wages paid by many farmers, are not such as a good, capable farm hand should receive, but it cannot be denied that a very large proportion of the farm hands of to-day are not of this class, but they are poor hands, poorly paid.

I can soonest and most certainly meliorate the condition of the laborer through bettering the condition of the employer, and giving him the ability to better pay the laborer, provided proportionately better service is rendered.

INCREASED DEMAND FOR FARM LABORERS.

The introduction of the power that I have recommended on farms to which it is adapted, although it will dispense with manual labor in many branches, will at the same time beget an increased demand for it in others, e. g., the more seasonable, more thorough and more profitable the culture of the soil, the more laborers to handle and prepare the increased products, will be required for marketing, and the greater receipts from the crops will give the means with which to quarry and burn lime, make roads, drain, build, grade, and even decorate and beautify the farms, and make the rural home and its surroundings such that the youth of both sexes will not desire to desert it, as is so often the case in the present condition of things.

THE FARMER "NOT AT HOME."

Literally many farmers may ever be said to be "*not at home.*" If at their place of abode, it is not a home, for it lacks every essential of that comprehensive word; and the large portion of the time the present defective system of marketing produce, requires the proprietor of the land to be from home; and in many instances the equal amount of time spent in loitering at the tavern or cross-roads, all taking him from home, and the employed are left to work or play at pleasure. "*Not at home,*" until finally summoned home by the flag and bell of the sheriff, who transfers the title of the farm to the highest bidder, when, ever after, he is "*not at home.*" It is a sad thing for a farmer to be "*not at home.*"

J. WILKINSON,
Landscape Gardener, Rural Architect, and Consulting Agriculturist, Baltimore.

TOO MUCH LAND FOR THE CAPITAL EMPLOYED.

To the Editors of the Maryland Farmer:

What is said by the Editor, in January number, in regard to "too much land for the capital employed," is evidently timely. Unquestionably, very large farming—farming large quantities of land—is most profitable, if well done, because more labor saving machinery can be used, but requiring large capital; but not so when large fields are skimmed over for half or quarter crops. The writer of this has, more than once, obtained 500 bushels of potatoes, 600 bushels of carrots, 40 bushels of wheat, and 100 bushels of corn, *per acre*, on small fields, well cultivated; and at a much greater profit than was realized by those farmers around him, who cultivated twice the amount of land to get the same number of bushels of produce.

Hence, small farms, well cultivated, are more profitable, as well as more creditable, than large ones, badly cultivated. And it is equally true, that if a man can command only a given amount of capital and labor, it is better to apply it to the smallest space of land that will receive it profitably, than to spread it out on large space, where the waste will be greater, more time lost in traveling over it, and more time and labor required to harvest a hundred bushels of wheat from ten acres than from five; or five hundred bushels of potatoes from four acres than from two; while every acre is so much capital, and the more produce that is obtained from it, the greater the interest realized. Thinking and examining will convince farmers of many important truths, told by the Editor, in the article alluded to above.

LAND MARK.

CONSTITUTION OF FARMERS' CLUBS.

In accordance with our promise, and at the request of a number of readers, we present the following Constitution and By-Laws for a Farmers' Club, or similar organization, that we think will be sufficiently comprehensive for all practical purposes, and for which we are indebted to the *Western Rural*:

CONSTITUTION.

1. This organization shall be known as the—— Farmers' Club of——
2. Its object shall be, improvement in the theory and practice of Agriculture, and matters relating to the well being of its members.
3. The members, other than the original ones, shall be elected by ballot, a two-thirds vote being necessary to elect; and members shall be subject to pay an initiation fee of $—, and annually $— thereafter.
4. Its officers shall consist of a President, Vice President, Secretary, Treasurer and Librarian, who shall jointly constitute the Executive Committee, and shall be elected annually.
5. Its meetings shall be held monthly, and at such other times as the President may deem necessary for the good of the Society.
6. This Constitution may be amended at any regular meeting by a three-fourths vote of the members present, said amendment having been proposed in writing at the previous meeting.

BY-LAWS.

1. The President shall, when present, preside at all meetings of the Club and Executive Committee.
2. The Vice-President, during the absence or inability of the President, shall perform all the duties of the Executive officer.
3. The Secretary shall record the proceedings of the club, and conduct its correspondence.
4. The Treasurer shall receive all monies paid into the club, and disburse the same only upon the written order of the President, countersigned by the Secretary.
5. The regular meetings of this club shall be held on the —day of each month at —o'clock.

There should be standing and special committees appointed. The latter may be constituted as occasion requires. The standing committees may be as follows:

1. Soils and their Improvement.
2. Grasses, Pastures and Meadows.
3. Cereal Crops.
4. Domestic Animals.
5. Root and other Fallow Crops.
6. Fruit and Fruit Trees.
7. Flowers and Shrubbery.
8. Products on Exhibition.
9. Library.

The order of business may be as follows:

1. Reading minutes of last meeting.
2. Reports of special committees.
3. Unfinished business.
4. New busines, essays, discussions, report of standing committee, etc.

These constitute the leading features of the organization, which may be readily modified by circumstances. The most successful clubs are held at the houses of the members. Thus they have a pleasant visit, inspecting the management of the different members on their respective farms. They may learn something instructive always, and criticise that which is wrong. These meetings may be made the means of cultivating that taste, social and other wise, so essential to progress. Farmers especially need this culture. Their lives, as a rule, is one of comparative isolation; but in Farmers' Clubs, in the order of Patrons of Husbandry, and kindred societies, may be found the means, not only for improvement in the art of Agriculture, and the sciences clustering around the art, but also those social questions pertaining thereto may be discussed, and if the proper means are used, there is no reason why farmers may not soon become as thoroughly prepared, through thorough organization, to cope with the problems of transportation, buying and selling produce, etc., as any other industry in the country.

We have heretofore stated that it only needed consolidation of force; this force lies within their ranks, but is partially latent as yet. When it comes to be thoroughly wielded, as it will be done, in the truly honorable manner for which farmers have always been noted, it will be a power for good in the land.

HOW TO MAKE AN OSAGE HEDGE.

Wm. P. Lippincott, of Vernon, Iowa, gives his mode of making an Osage Orange hedge in the *Horticulturist*: — My experience is, that plashing is the best mode of making a fence with this material. I speak from twenty-five years experience. My first fence of the Osage was plashed when it was ten or twelve years old, and is now a barrier to all intruders except rabbits. It is yet healthy and strong, with no indications of dying. The objections to plashing come from not doing it properly. It is a common practice in plashing to get on it and trample it down to a horizontal position. This, of course, makes a good fence for the time being—but will it live? that is, will it live beyond the stump? From what I have seen of this kind of plashing, I know that it will not; but if it is bent over to an angle of 45° from the perpendicular, or a little more, and kept so, then it will make a good and enduring fence.

RAISING GRASS.—An Illinois correspondent in the *Prairie Farmer* thinks if a farmer will take two fields that have been in grass two years, and plow one of them up, seeding for a new crop of grass, he will find it to yield much more largely than the one not plowed. He thinks land may be enriched by plowing, without manure, but does not believe that taking off a crop of grass each year, and not manuring, will increase the fertility, The sod turned under in the first case enriches the soil, the taking off of the crop decreases the fertility.

MR. MECHI ON USING THE SUBSOIL.

If I ask for a definition of the word cultivation, I am told that it means the disturbance or upturning of the earth to a depth of five inches, or the thickness of a family Bible, which is the admitted substance of the British agricultural pie-crust; but when I ask why this particular depth of five inches (in preference to 10, 15 or 20) has been fixed upon, I can get no satisfactory or scientific reply. I presume it must be because a pair of horses (sometimes four, I fear,) can plow at that depth an acre per day. We cannot call this either a scientific or satisfactory explanation. If the roots of plants descended only five inches, and found within that space ample nourishment for their perfect development, there would be no occasion to find fault; but we know that it is not so, and that plants send their roots down into the subsoil several feet, especially if it is in a suitable condition, which is very rarely the case, because it has neither been disturbed, aerated, drained or manured. When I hear, as I frequently do, that high farming injures the barley crop, I smile and reply, "Mix the rich top-soil with the poor, unmanured subsoil, and you will then no longer complain of laid frothy crops, which injure young clover; but don't sow too thickly." Here is a striking instance of the advantage derived from more deeply disturbing the soil and subsoil. In the presence of 700 of my guests, in July, 1856, Fowler's steam-plow, with Cotgreave's subsoiler attached, operated on three stetches of one of my clover-leas. The result was that, though all the field had been under deep and good cultivation, these stetches appeared, in the early growth of the wheat crop, as though they had received an extra dressing of manure; and for five years after all the crops on those deeper disturbed stetches showed a manifest advantage. Liebig says "the subsoil, considered as a field apart from the arable land, gives to turnips and lucerne a certain quantity of mineral constituents. Where the fields have a subsoil favorable to the growth of these plants, it is as though the arable surface soil were doubled." We hear great complaints about thin-skinned land. Whose fault is it? Mine was wretchedly thin-skinned 30 years ago, until I greatly deepened the staple by breaking up the subsoil under the plowed land, still keeping the old soil uppermost. By these means the placid elements of the plant food in the subsoil became gradually active and available.—Draining, of course, preceded the subsoil disturbance. All this has been and must be profitable. However much a farmer may be restricted in his lease, there is never any limit as to the quantity of soil he may use for the growth of his crops. It may be 500 tuns per acre at a depth of 5 inches, or 5,000 per acre at a depth of 50 inches. His rent, rates, tithes, taxes, &c., will be no greater on one than on the other, but his crops will be unmistakably increased. Drainage must be used if the land is not naturally drained. There are, of course, loose friable soils that require compression rather than deep disturbance. Liebig attaches the utmost importance to deep and efficient tillage as an agricultural basis. He says: "The agriculturist has to do with the soil alone; it is only through it that he is able to exercise an immediate influence on plants. The attainment of all his objects in the most complete and profitable manner, presupposes the exact knowledge of the effective chemical conditions for the life of plants in the soil; it further presupposes perfect acquaintance with the food of plants, and the source from which it is derived, as well as with the means for rendering the soil suitable for their nutrition, combined with experience and skill in employing them in a proper way, and at the right time." Science has indicated that in the subsoil we should seek for increased profits, for it teaches us that in the great majority of soils the earth at every depth contains a certain portion of the elements of plant food, which only require aeration and amelioration by disturbance, drainage, and manure, or by burning, to render them gradually available as plant food. Science has also discovered that it is not possible to manure the subsoil through the topsoil, except in a very slight degree, for the latter has the power of fixing and retaining very much larger quantities of plant food (ammonia, phosphate of lime and potash) than are usually applied; only very small portions of these pass annually into the subsoil—we should therefore intermix the top and bottom soil. Farmers as a rule have no faith in the subsoil, but, on the contrary, rather fear it, believing that there is something unwholesome under the cultivated crust, and that the interior of the pie is of the wrong sort. The fact is that it is raw and uncooked, because it has never, like the topsoil, been stirred and exposed to the ameliorating and fertilizing influences of the atmosphere, and, in too many instances, for the want of drainage, air is completely excluded bp the presence of stagnant water. The good effects of cultivating the surface soil, should have taught us how beneficial would be a disturbance of the subsoil.—Here let me draw a distinction between plowing and cultivating; great injury may arise from suddenly upturning the raw subsoil and burying the friable topsoil, while much good will result from breaking and loosening the subsoil, thus permitting some of the topsoil and manure to fall into, and gradually intermix with it. Some subsoils may be

safely brought to the surface, but this is not generally the case; a trial of the subsoil in some flower-pots will soon enable you to judge. Certain folks are, however, (thanks to steam power,) now distributing the contents of the pie most resolutely and fearlessly, both in hop gardens and elsewhere. At Farringdon, in Berkshire, two sets of Fowler's 30-horse power engines are cultivating, or breaking, (not plowing,) the land to the depth of 36 inches. * * * The good effect of loosening the subsoil is visible for a great many years. Some 29 years ago I drained all my land, and over every drain for more than 20 years there was a visible advantage to the plants immediately over the disturbed space. This arose from free circulation of air and water, and from the diminished obstruction to the passage of root fibers. The same profitable result will take place over the whole surface of our land when it is disturbed by steam cultivation to the depth of 2 to 3 feet. But also the land will be dryer and warmer, and we all know how important warmth is to the soil, and especially to the subsoil, for it is by bottom heat that gardeners succeed in growing their magnificent specimens of luscious grapes and other fruits. They know that mere surface or outside heat cannot produce such results; the earth to some depth becomes gradually warmer as the days lengthen, and loses that heat gradually in autumn and winter. The heated soil promotes the early multiplication of root fibers. The earth has an especial attraction for the sun's heating rays, so much so that its surface temperature in sunshine is many degrees warmer than the air above it—sometimes as much as 30° to 40°. When walking over fallow on a bright spring day, although the air was nearly frosty, I have felt the heat through the thin soles of my shoes. I have observed over fallow ground, during sunshine, a trembling waving of the air; this is produced by the lower stratum of air in immediate contact with the earth becoming heated and expansively lightened, when it immediately struggles to rise through the cooler and heavier atmosphere. I have noticed the same waving, struggling, upward movement in the air over and around heated stoves or pipes. We have all observed how rapid is the growth of plants after a heavy thunder shower, falling on the heated soil. This is because water is the great carrier of heat downward; falling on the superheated top-spil, it robs it of some of its heat, and in passing down the drains is itself deprived of heat by the colder subsoil, for at four feet deep the subsoil is generally as low as about 46° to 80°, while the surface may be at 100° to 130°. And now becomes obvious the advantage of deep cultivation and drainage, which permit the heated water to circulate freely in the soil and subsoil, and, if in excess, to pass away through the deep drains, deprived of its heat and valuable food constituents. When our stiff clays crack abundantly, and often to the depth of four feet, the wheat crop is sure to prosper, the warm air having access to the cold subsoil by the cracks. I have several copious deep spring drains, running summer and winter, the temperature of the water being always about 46° to 48°, (which I believe is the temperature of the soil at four feet,) so that the parts of the pond into which it enters never freeze, while in the summer it feels almost as cold as ice. It is most important, therefore, that spring or bottom-water drains should be placed very deeply, to prevent the cold water from rising by capillarity or pressure to the surface, and by its chilling influence retard the growth of plants, for none can prosper, excepting bog moss, where spring water rises to the surface. Subsoils well broken into and rendered friable are accessible to atmospheric embraces which are always fructifying. When these dense compact subsoils thus become more friable and capillary, we might then almost compare them with a piece of loaf sugar, while, previous to this disturbance, they were like a lump of lead or putty—the one with, and the other without, those capillary powers which are so valuable. The importance of this capillary powers is detailed and illustrated by Baron Liebig. We may, however, safely accept as a principle that it is profitable to make use of the subsoil, now that mighty and untiring steam can cheaply and effectually enable us to do so.

VALUE OF CITY WASTES.

The German system of experimental stations is furnishing scientific agriculture with *data* which cannot fail to have an important bearing on the production of that region. Mr. Lepmann, director of the central station in Bavaria, speaks of the loss of fertilizers in the wastes of the city of Munich, which he estimates as containing a population of 177,000. The amount of available nitrogen annually lost in the human excrements, fluid and solid, of that city, he places at 1,857,714 pounds; to which he gives a value (reduced to our currency) of $433,467. This gives an aggregate loss of nearly half a million of dollars. While this waste is being suffered the German fields are enriched by an annual importation of 1,000,000 hundred weight of Peruvian guano, at a cost of about three millions of dollars. Munich, however, is but one of a number of German cities whose wastes, if calculated at the same ratio, would be equal in value to the fertilizers imported. Mr. Lepmann proposes that this waste be saved.

FARMERS' HOMES.

A Paper Read at the Annual Meeting of the New York State Agricultural Society, February 9, 1871.

BY FRANK D. CURTISS, OF SARATOGA COUNTY.

It is often the practice with farmers to think more of the farm than of the farm-house. It is a time-honored adage that "charity begins at home;" hence we think that a few suggestions correlative to this sentiment may be profitable. There is a feeling of dissatisfaction with agricultural life among the sons of farmers, leading them to hate the occupation and surroundings of their fathers, and to seek a society and business which their fancy paints to be more congenial and less laborious. Farming is hard work at the best; and when it amounts to abject drudgery, with no sunshine in-doors, and no grateful cheer of books, intelligent conversation, and encouragement to the promptings of latent ambition, not to omit good food and a pleasant home upon which the eye delights to rest, it is no wonder farmers' sons and farmers' daughters become restive, and long for the time to come when they can throw off the shackles of an unsatisfying servitude, and go to the factory, the store, or an over-crowded profession, where they can enjoy some of the privileges which they eo not have at home. The remedy for this is to make home pleasant and enjoyable. Do not enrich the field and impoverish the household. Apply every exertion in culture and drainage outside the home, but do not neglect to sweeten the inner atmosphere and strengthen the ties within; so that from the intelligent happiness of the home circle there may always radiate a cheerful and intelligent, and therefore effective, energy.

Children must be made to *love* their homes, else the attractions of cities and villages will surely lure them away from the peaceful and monotonous labors of rural life. Let them plant trees, cultivate them, and have the profits accruing from the sale of fruits they bear. Let them have fowls, animals, bees of their own; be taught how to rear and care for them, and enjoy the results of their attention, and work in toys or books, or investment in the savings bank. The sense of proprietorship will give to a boy not fond of work great interest in a small potato patch, or a score of sage plants, or a rod square of Lima beans. And in our country girls a love for out-of-door work should be sedulously cultivated. Let them have a garden spot, with room for flowers, herbs and vegetables, and time to take care of it. Better raise flowers and shrubs and fowls and honey, than delve in the kitchen forevermore, and then have nothing for it.

Ample provision must be made for sport during the short winter days, and the long, cold evenings. Checker-boards, candy-pullings, games of various sorts, music, amusing books; these are indispensable. Let the boys have traps and catch minks and muskrats, rabbits and skunks, the more the better. Let the boys and girls have sleds and skates, with wrappings and furs of their own trapping, and enjoy the glare of frozen ice, th slippery side-hill, the glowing starlight, the jingling bells, the bracing, frosty air, and all the delights that make winter on the farm a season of festivity and sport. Then do not keep all the preserves and canned frult, the various goodies laid up in store, only for company; but bring them out on proper occasions, just to let the boys and girls have a good time eating them, and they will be more ready in hot days next summer to renew the wasted store, and lay up future enjoyments for the coming frosts and snows.

Then remember, that any right-minded boy or girl always likes to know the reason of things.—Explain to your sons when you are sowing clover for manure, how and why it benefits the soil; why some soils require lime and others the acids of decomposition to render them mellow and fertile. If the children are contented and happy the young folks will be.

Let the boys earn money, and give them the benefit of your *advice*, not *commands*, how to expend it. Make the boy a man and the girl a woman, as far as you can; not a drudge or a fool, being yourself the mouth to speak for them, the eyes to see for them, and the brains to think and act for them. Let them act for themselves, under your care and supervision. Try to know more than they do. Spend your own surplus time in informing yourself, and laying up a store of knowledge to import to them, instead of gossiping with some talkative neighbor, or telling over for the hundredth time some pig story, or affair which never had any pith or point, and which your son hears, wondering how you can be interested in such nonsense, when the wide world is before him, and nature, whose laws and phenomena are to him an enigma, is all around him, and you should be, and he expects you to be, capable to explaln many of these things to him.—Live, if possible, in the front side of the house, where something can be seen. Do not have all the grand and comfortable things in the parlor, which is opened quarterly when the minister comes around, and the rest of the time is sacred, unless there is a funeral or wedding, which the girls would not postpone a great while in such a home; but have some of the cheery and nice furniture in the sitting or family room. Be sure and have such a room, if you have to do without the parlor; and

have a place for books, and have books there. In addition to what we should always expect to find (a Bible, and an almanac and histories,) let there be agricultural papers and books. Much can be learned from them, how to prevent disease among the animals, how to cure disease, and hints and facts about the crops which more than repay the cost, besides furnishing food for the hungry minds of the boys and girls.

The surroundings of the farmers home can be made more comfortable. Instead of the little building situated several rods from the house which must be visited in the storms and cold exposed to the public gaze, and which is very often a nuisance, let a lean-to be made against the rear of the dwelling or wood-house, with an entrance under cover, where tubs can be placed, and by an addition of a little earth or plaster or muck every few days nothing disagreeable will ever be experienced. The compost heap or the manure pile will receive the contents, and at least ten dollars annally of additional value will be realized for each adult. Have a cistern. Gather the materials at odd times ; and if you have room in the cellar and do not want to afford time to dig a hole, wall up one corner and let the water in. Put a pump in the kitchen in the handiest place, and with a lead pipe you may draw the water to a sink within a step from the stove. Keep a stock of wood ahead. Any wife has a just reason for divorce from a husband who is so mean and so shiftless that he furnishes her stove wood from day to day ; and any farmer who does it with the idea of economy is a dunce, for the time spent in hunting up the axe (and such a farmer always has to hunt up his axe or anything else he wants,) and the time spent in going to and from his other work to cut the wood, and the delays waiting for meals because the wood is green and wet, would go a long way toward working up a good stock of wood, which, being seasoned and handy, the hard working housekeeper could use so as to save herself many a scolding ; and a man who has no wood pile must be a scold, and unreasonable enough to find fault with his wife, when he alone should be blamed. Pork is the most expensive food, besides its tendency to make people gross and vulgar. A big pork eater and a man of delicate sensibilities and feelings are opposites. A pound of chicken can be produced on a farm as cheaply as a pound of pork, the same is true of mutton ; both are healthier than hog flesh. Then why not raise chickens and lambs, and eat poultry and mutton ?

An ice house is indispensable to a well regulated farm house. The best way to build one is to construct an addition on the north side of the kitchen or wood house and connect with it a dark room, to be used for a store room. This room, having the ice on one side, with only a partition between, and no window or ventilation except at the top, would always be cool and free from flies. Here the fresh meats and the cream and other things can be kept cool and sweet. To be handy, the ice could be taken out from the ice house through a door opening into this room and be closed on the outside all the year except when it was necessary to be open in order to put the ice in. The first cost of this addition would be but a trifle, and the expense of getting the ice nothing at all, for the farmer could do all that himself.

A nice house, with the roadside in front of it the favorite place of deposit for all the broken and dilapidated crockery, tinware and debris of the farm, is a common sight, and presents a contrast which demonstrates that the lady who presides within has no proper appreciation of the "fitness of things." Everybody likes the sweets of neatness, and the home is pleasanter if neat. Banish the swill barrel from the kitchen door and in its stead have two large pails, and a rule, which every man and boy must obey, to empty them when full into the swill barrel which shall constitute part of the furniture of the pig-house. A clear cellar, airy and free from odors, is health.

A house on a hill, with no trees around it, looks cheerless and unhomelike. Have grounds around the dwelling. Tear away the fences ; they cost money and are useless. I mean the fences shutting the house up as if there was danger of its running away. Let there be not less than an acre of door yard, ten will be better. Make a rich lawn of this, and cut the grass. It can be no waste ; but it will be a thing of beauty, and "a thing of beauty is a joy forever." There need not be any loss to be tasteful. Nature and beauty are synonyms. Good taste and economy can, therefore, be made handmaids to each other. Set out fruit trees in this inclosure and dig around them with a spade each year, and top-dress the whole, and the trees will grow luxuriantly, and the house will grow beautiful, the children will grow contented, the fathers and mothers as they grow old will grow happy, the neighbors will grow to emulate and excel, the township will grow attractive, and the young men and the young women will grow up to think and to feel that there is no place after all like home, "sweet home."

Four birds destroy the codling—the blackcap titmouse, or chickadee, the downy woodpecker, the bluebird and the crow blackbird.

☞Always give the name of your **Post Office** and **State** at the heading of your letter, and in legible characters.

For the Maryland Farmer.

A LETTER FROM MR. DUNK HIMSELF.

ON IMMIGRATION AND OTHER THINGS.

NUMBER ONE.

I think I have a right to feel hily indignant: here the Joodge has been exposin' my practices and wot I have been tellin him bout farmin matters fur a year or two! Who would 'ave thought the Joodge would serve me so, and that a nabor! I'll tell you wot *I*'ll do, Mistur Editur, I'll jest expose some o' his proceedings and then the peeple kin jedge whether I'm as bad as he makes out, and if I am I've got plenty o' kompany, fur I'm follerin in the footsteps o' them that knowed all adout the kentry afore ever the Joodge heerd ov it; he wants to tern things upside down, and alter all the notions o' them old time peeple that raised as good crops as any o' the new-fangled set that puts up their notions in books and papers.

He ses I'm down on immergratin the peeple from the old kentry over here, and I *am;* I stick up fur what I told him, that the furren element over heer is jes eatin out the native stock, and ef we bring em over heer all we've got to do is jes sit on a fence rail and starve to deth.

Why, them furriners 'll live and git fat and make money where we fellers 'll starve. Jes look at wot they'll live on: a little piece ov bread, a little cheese, a few potatoes and a pot ov beer or sumthing ov that kind is all tha want, and tha don't keer if tha don't git meet more'n onct or twict a week, and then tha work all the time. Wot ef *we* could live on next to nothin and work all the time, wouldn't we git rich, too? The Joodge cracks up them furriners *too* powerful, it appears to me; seems to me a man oughtn't to turn agin his own kin that way; he ses that the law agin their ownin land ought to be taken off, so as to give em a fair chance with our own home peeple. I'm agin it. Give 'em any more chances and a 'Merican man 'll have to turn roun an' work for 'em 'fore tha git to be voters, an that's a disgrace I'll never consent to, me nor my children. Besides, the Joodge is inconsistent; he wants lots o' these yere Farmers' Klubs (mi opinion is *he* ought to have the biggest one you kood pick out,) and the peeple to tend on em; how's peeple goin to tend on Farmers' Klubs an keep busy, too? How's them butiful furriner's he loves so to keep up Farmers' Klubs and go to work clarıng up land, ditching an improvin generally? My notion is, while peeple has got plenty o' work at home tha'd better stay there an do it instead o' runnin off to tell other peeple how to do it. 'Peers like he thought immergratin and Klubs would run the peeples' farms while tha sot on fence rails and look'd on. He's been a tellin yu wot *I*'ve been a sayin; now, I'll tell you a few ov what *he*'s been a sayin.

He kum up to me t'other day, rubbin his hands and smilin all over, an sez he, "Jakobb," (I don't mind 'im kallin me by the first name, kause he's one ov them Quaker kind o' men that thee's and thou's a feller an makin money out ov 'im all the time; leastwise he leans that way,) sez he, "Jacobb, the tide is turnin, tha've got a hundred or two furriners up in Queen Anne's county, and them hundred'll tell their friends and tha'll be down lookin over Maryland fur places, and no doubt sum will be in our kounty and as we've got about the best kounty in the State for farming; we kin git 'em to settle here by the hundred ef we'll only make use o' the rite means," an he sez he's goin rite to work to konsult the proper authorities an present the advantages we offer to emagrants.

Ef he doez, I'll jes git up a meetin an inform every furriner that we are a hily intelligent an edukated peeple, born under the stars and stripes of our native kentry, and feel fully kompetent to karry on our own biznes without eny interferens from them or any other man born under the despotic influences of militery guvernmunts, and that we, as a peeple of revolutionery karacter kant witness, without patriotik indignation, thare kummin in amongst us to settle, and konsekently tha must go elsewhere fur homes an firesides. Mistur Editur, mi feelins iz a rizin when I kontemplate the onjustis of sech men az the Joodge, an I mean to show him up, now that I've got mi hand in writin. I'll tell you ov the old bones in his shop, an wot happened to our little Jake, and yu kin jedge wether he's all rite or not, but now I mus stop an go up to the Codge fur more paper. I despise the insinuashun ov the Joodge about wot I go up there so much fur; enny how, he wouldn't treet a feller, he's too stingy, but I'll show 'im up afore I git thro with this thing.

Yu haint no rite to publish sich things neither.

Indignuntly,

JAKOBB DUNK.

[Having permitted the use of our columns to the Joodge so long in his exposition of Mr. Dunk's remarks and practices, we cannot in justice refuse a brief space to the protest of Mr. Dunk as given above. We will hear him "show up" the Joodge, and if Mr. Dunk can give as good reasons for such a proceeding, we will withdraw from the Joodge the confidence so long reposed in him.—EDS.]

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Col. W. W. W. BOWIE,
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D. Lawrence,	**C. K. Thomas,**
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DEATH OF JAMES GOWAN.

Mr. JAMES GOWAN, well known throughout the country as an agriculturist and eminent breeder of stock, died at his residence, Mount Airy, in January last, at the advanced age of 83 years. His name is familiar to many of our farmers and others who attended the Fair and discussions at the meetings of our Maryland State Agricultural Society, in former years, in which he always bore a conspicuous part. The *Ledger* says that Mr. GOWAN had been, for many years, prominently identified with the agricultural interests of the State and country. His farm, at Mount Airy, was a model establishment, and his specialty was the breeding of choice cattle, the stock for which he imported. His cattle were distributed throughout the whole country. He was many years President of the State Agricultural Society, and also a leading and active member of the Philadelphia Society for Promoting Agriculture. In his youth and manhood Mr. GOWAN was prominent in polities, and was a frequent contributor to the newspapers, and his correspondence included a large collection of letters from the leading statesmen of a past generation. He was the oldest past master of lodge No. 51, A. F. M. The deceased was the father of FRANKLIN B. GOWAN, president of the Philadelphia and Reading Railroad Company, and J. E. GOWAN and H. C. GOWAN, two well known citizens.

GRAIN DRILLS.

From the Report of X. A. Willard,on the Implements and Machines exhibited at the late New York Fair, we extract the following:

Grain drills are now constructed so as to do their work in a very superior manner. The advantage in drill-sowing grain over broad-cast sowing, is very generally recognized. A good drill distributes the seed evenly and regularly at a sufficient and uniform depth to ensure moisture and thereby all germinate at once. In broad-cast sowing a part of the seed is left uncovered, and that which is covered by the harrow is at unequal depths, and thus the seed exposed to birds, to drying winds and scorching suns, and much of it fails to germinate, or does not mature into strong healthy plants.

The show of drills was excellent. BICKFORD & HUFFMAN, of Macedon, N. Y., exhibited their *Farmers Favorite* in two styles, the one for sowing grains only, and the other with full attachments combined for sowing field grains, grass seeds and fertilizers. Hon. J. Stanton Gould in speaking of this drill, says:

"I have never, in a pretty extensive acquaintance with seed machines, found any which *for durability, accuracy, facility of management and repair, economy and adaptation to all the variety of circumstances which are met with in the field* will compare with it in excellence. You will observe that the peculiarities of this drill which, in my judgment render it superior to any other, are, that it forces the seed forward, independent of gravity, by the continuous action of the distributing wheel without injury to the grain, and with such exactness that when you have determined the quantity you will sow per acre, and adjusted the lever to the corresponding point of the index, *you will find, as I have often personally proved,* that when the grain is all emptied from the reservoir, you have sown or measured an acre of ground *nearly as accurately as a surveyor could do it.* Another striking peculiarity of this drill is the double-flanged distributing wheel and corresponding double shell guards, which, without increasing its size or weight, converts the implement into two drills of entirely different capacities, each admirably performing its work, one sowing the coarse grains perfectly, the other equally effective in planting wheat and rye. With very ample facilities for judging, I am quite sure there is no machine before the public which will answer all purposes of the farmer so well as the Farmers' Favorite."

AIR-SLACKED-LIME FOR WHEAT.

A correspondent from Comorn, King George county, Va., wishes information as to the use of "slack-lime as a top-dressing for wheat." We believe the practice of top-dressing wheat in autumn and early winter with slacked-lime to be a good one. From 25 to 50 bushels per acre on light soils is enough. It should be spread as evenly as it can be conveniently, and the sooner after the wheat is sown the better. We do not think any very perceptible benefit will be derived from it by the wheat crop, top-dressed as late as February, but the grass seeds sown among the wheat in spring will be benefited, and the land materially improved, while the straw of the wheat will probably be strengthened, and possibly the grain may be increased in weight and quantity. The practice of spreading air-slacked-lime, or a heavy dressing of plaster, in the autumn or winter, on grain and young clover is highly commendable.

MR. HOWARD'S HISTORICAL SKETCH OF BALTIMORE AND BUSINESS DIRECTORY.—Our advertising columns will inform the public that George W. Howard, Esq., has nearly completed his interesting Historical Sketches of the prominent points of Baltimore, together with accurate accounts of its various branches of trade, with statistics of the extent and growth of the several industries; the whole work will be profusely illustrated. It will prove, we feel assured, not only a valuable auxiliary to the merchants of the city, but tend to the advancement of trade and stimulate progress, at the same time be an interesting book to the general reader.

Washington County Agricultural Association —On Saturday, January 4th. a meeting of the Stockholders of this Association was held at Hagerstown. Great interest was manifested, and fully two-thirds of the stock was voted. An election of officers for 1873 was had, which resulted in the election of the following gentlemen:

President—GEORGE W. HARRIS.
Vice-President—CHAS. W. HUMRICHOUSE.
Recording Secretary—P. A. WITMER.
Corresponding Secretary—ALBERT SMALL.
Treasurer—BUCHANAN SCHLEY.
Directors—DR. WILLIAM RAGAN, PETER B. SMALL, A. K. STAKE, ALFRED SHOWMAN, B. A. GARLINGER, H. H. POWER, WM. DODGE, JOHN REICHARD, F. K. ZEIGLER, H. S. ZELLER.

York County (Pa.) Agricultural Society.—At the Annual Meeting, held at York, in January, the following officers were elected to control its affairs the ensuing year:

President—JOHN EVANS, Esq.
Vice-Presidents—P. A. SMALL and D. REIFF.
Recording Secretary—Dr. W. S. ROLAND.
Corresponding Secretary—A. H. GLATZ.
Managers—HERMAN HOKE, EMANUEL HERMAN, G. MAISH, JOHN AHL and EDWARD SMYSER.

By resolution the Penna. Fruit Grower's Society was invited to hold its next annual meeting, in January, 1874, in the city of York.

PUBLICATIONS RECEIVED.

The Old Dominion. A Monthly Magazine of Literature, Science and Art. Richmond, Va.

This popular magazine has always been well conducted, and its contents very creditable, but of late it has become more interesting and sprightly under the gentle influences of its new conductor, the accomplished *Mrs. M. C. Wallace.* The December number contains among its many good articles, an excellent editorial review of Gov. H. A. Wise's "*Seven Decades of the Union.*" Being the only Southern Literary Periodical, and so worthy of patronage, it forcibly demands a warm and liberal support from the Southern people. Its terms are only $2.50 in advance per annum. Address, "Editor of Old Dominion," 305 Byrd Street, Richmond, Va.

Catalogue of the Maryland Agricultural College—Session of 1871-2.

This Catalogue gives us some important information as to the inside working of this Institution, its rules, course of studies, &c. We are pleased to see the number of scholars has increased to 147. From other sources too we are glad to learn that its financial condition is healthy, and that perfect concord reigns over its management. But, as early and staunch friends of this College, we regret te see that the two chairs from which it derives its title of "Agricultural," are both vacant. And in the division of the schools of the classes, the School of Agriculture, in First Preparatory Class, is only "occasional light outdoor excercise, &c., &c." The same also in Second Preparatory Class. In the College classes the School of Agriculture, &c., is designated as teaching "the theory and Practice of Agriculture, &c., Arrangement of Farms, Planning of Farm Buildings, Farm Implements, Principles of Tillage, Lanscape Gardening, Road Making, &c., Stock Breeding, &c." But the chair of the Professor of Agriculture and Horticulture, and that of Floriculture, Pomology and Botany, are vacant, although it is said "regular lessons in Practical Farming and Gardening, Horticulture, Agriculture, Experimental Sclence, and in Natural History, are given to every class in College," yet this does not fulfil public expectation, based as it is upon the declared intentions of the founders of this Agricultural Institution. Agricultural knowledge, both theoretical and practical, was what was chiefly to be taught the students. The Classics were to be secondary to Agriculture, and until it becomes more specially an agricultural than a literary school, it will not meet the public wants, nor be in consonance with the lofty intentions of its originalpatrons,and the distinguished agriculturists who brought it into existence, and claimed the aid of the State, for the principal reason, that agricultural knowledge should be taught, and thereby the agriculture of the whole State elevated and advanced from the condition of ignorant manual labor, to a scientific pursuit, by which farm labor would be dignified, and its productions hugely increased, with decreased manual toil.

The Herald of Health. Devoted to the Body and Mind. WOOD & HOLBROOK, Publishers, New York. $2 per annum, with premium.

This a neatly printed and ably edited Monthly Journal of Health. It is full of useful and instructive reading for old and young, and very interesting to all who are fond of hygienic studies.

Forty-sixth Annual Report of the President and Directors to the Stockholders of the Baltimore and Ohio Railroad Company for the Year ending September 30th, 1872.

This very able and interesting Report shows the healthy condition and prosperous state of this grand work of internal improvement, and the excellence of the management, in every particular, of this immense interest, by the officers of the corporation. The gross earnings of this long trunk road and its many branches for the past fiscal year was $13,626,677.31. The aggregate working expenses were 61 2-5 per cent. of the whole gross revenues, leaving a net revenue of $5,259,202.32 for the year. This fact alone shows the vast facilities it has afforded the producers for transportation of the products of their labor, and the Report gives assurance of increased facilities in the future, to not only domestic trade, but by the increase of the number of steamships, to the foreign commerce of Baltimore. It is hard to conceive where the usefulness and benefit of this gigantic corporation, and other kindred enterprises, will cease. Railroads are certainly developing the resources of this country at an astounding rate. Every one engaged in rural pursuits, or other industries, or feels an interest in the growing prosperity of Baltimore, will read this Report of Mr. Garrett with feelings of proud satisfaction.

Hunters' and Trappers' Practical Guide. JESSE HANEY & Co., Publishers, New York. Price 20 cts.

This little book would interest and instruct all who are fond of such diversions. To country boys, we think, it will give huge enjoyment. It is well and profusely illustrated. For hares nothing equals the gum or simple box trap of our boyhood days, although it is not mentioned in this book.

Kurtz's Maryland and Virginia Almanac for 1873. Baltimore, 151 west Pratt Street.

As usual our neighbor the publisher of this old and highly popular Almanac, has sent us a copy. It is like some familiar friend, that we must have constantly by us. As a *prognosticator* of the weather we have for years noticed its general accuracy, and considering these predictions are made a year ahead, we think in weather-wisdom it beats "*Probabilities,*" in the Signal Service, which only predict the coming weather of the following day, after gathering information by telegraph from all parts of the land.

Address of L. M. Maury, L. L. D. Before the National Agricultural Congress, at its Meeting in St. Louis, May, 1872.

We are indebted to C. W. Green, Esq , Secretary, for a copy of this able address. Dr. Maury points out the vast importance of an international conference of the leading agriculturists and meteorologists of different countries for the establishment of an international system of crop and weather reports. His arguments and facts are convincing as to the importance of the science of meteorology, if properly developed, in aiding successful farming, advancing the interest of agriculture, and materially increasing the national prosperity. It is to be hoped that these views of the learned philosopher, and the recommendations on this subject by the National Agricultural Congress will not fall unheeded by the present Congress.

Bulletin of the National Association of Wool Manufacturers. Quarterly—Boston, Mass.

This is a very valuable work to all who are interested in the wool trade, and is much importance to sheep-breeders. It is elegantly gotten up and ably conducted. The October-December number contains a very interesting, elaborate and exhaustive article on indigo, which as a dye enters so largely into the manufacture of woolen goods. Such Journals as the Bulletin reflect credit upon the associations for which they are the organs.

Report of the Chief Signal Officer, to the War Department, 1872.

We are indebted to the politeness of Genl. Myer, Ch. Signal Officer, U. S. A., for a copy of his interesting and valuable report. This new enterprise of the Government is destined to effect great benefits upon the marine service, and on commerce generally, while it is destined to be of incalculable advantage to the agriculturists. A close observance of these daily Bulletins from the Meteorological Department of the Department of the Signal Office will save annually millions of dollars to those engaged in the culture of the soil, by timely warning about harvest times. The sailor will trim his sails, and the husbandman shape his work, preparatory to the coming storm, and neither suffer from any unexpected, sudden outburst, that otherwise might bring total destruction or great loss.

HOW TO HELP THE "FARMER."

MARYLAND, *January* 11, 1873.

To the Editors of the Maryland Farmer:

Noticing your request that each subscriber would send you one new name, I am reminded of my own effort in that direction, and I mention it to encourage and stimulate others. When I first subscribed to the *Maryland Farmer*, several years ago, only two or three took it at my post-office ; in 1872 four times as many were taking it in my section, as the result of the limited time I was enabled to give the matter. With proper effort this year I believe the number could again be increased four-fold. It strikes me that we farmers should take hold of this matter as having a direct interest in the increase of your subscription list, because we find our efforts to secure improvement ineffectual ofttimes in consequence of the want of appreciation of the general as well as special benefits such improvement would confer, whereas if the minds of the people were fully alive to the necessity of such improvement, it could more easily be secured, and the general spread of information in the community by the agricultural press is the best way to effect the necessary education of the people in regard to their interest.—Fellow-farmers, let us take hold of this question ourselves, talk to our neighbors, show them the *Maryland Farmer*, agitate and exhort, and finally close the campaign of 1873 with fifty thousand names on the list of the magazine devoted to our interests, our welfare, and our happiness.

Yours, very truly,

JUDEX.

OUR CONTRIBUTORS—THE MARYLAND AGRICULTURAL COLLEGE.

MARYLAND AGRICULTURAL COLLEGE,
January 20th, 1873.

To the Editors of the Maryland Farmer:

You have paid me the compliment of placing my name on your list of "Special Contributors," in which I find indicated experience and ability enough to keep the *Maryland Farmer* in the front rank of agricultural journals; your able editorial corps, of course, doing so well the chief work. Let me express the hope that no one of these excellent gentlemen will hold the position as only a place of honor, but that all will give us the benefit, and that often, of the varied and valuable knowledge of which they are masters. It will add, too, I think, to its value and interest, if each one, when he writes, will favor us with his proper name.

Let me call your attention to the fact, which I have seen no mention of in your pages, that one of your contributors, Dr. E. J. Henkle, was appointed at the beginning of the present session to the Chair of Natural History in our Agricultural College, and is delivering a course of lectures, which are highly appreciated.

I wish to say to you briefly as to the Agricultural College, (the late day at which I am writing forbids my doing more,) that its affairs and prospects have never before been in so satisfactory a condition. First, there is the great comfort of a thoroughly sound financial condition. To be entirely free from debt, to keep all current expenses punctually paid up, and to have expended within three years, more than twenty thousand dollars in valuable improvements is in most agreeable contrast with the many years of doubt, disaster and almost ruin that we had to encounter during the war, and for some years after. The large quantity of fencing destroyed by U. S. troops during the war, and which we had no means of replacing, except partially, has now been more than restored by new and substantial post and rail, making seven divisions of the farm. Our large barn was burned, but is now replaced by very commodious and convenient new buildings, answering every necessary purpose. A carpenter shop, slaughter-house, gymnasium, and large poultry-yard, are also among the additions which I do not attempt to enumerate in full. The farm is being brought by degrees, as means allow, under greatly improved culture, the stock is being added to and improved, and everything wears the appearance of health and thrift and growth.

Our President, Dr. Regester, has a genuine love of rural improvement, and rare judgment and skill in directing it, while his watchfulness and prudence in administering the finances of the Institution, enables him to command the means of which he knows so well the proper application. Our Board of Trustees have never taken more earnest and active interest in the affairs of the College, and the well known President of the Board, Mr. A. B. Davis, is full of zealous, intelligent care for all that concerns it. His watchfulness for every opportunity of serving it, and his untiring diligence in doing so, deserve the commendation and thanks of everyone who wishes the prosperity and success of the work we are trying to accomplish here.

The large increase in the number of students, almost up to the limits of our ability to accommodate them, is another satisfactory feature. With our increased income, which we began to realize four years ago from the United States land fund, the charges were put down to the very low point, which has enabled many farmers to send their sons here, who could not otherwise have done so, and our President has very diligently made known the claims of the College to his own wide circle of friends, and the community at large.

I have no time in this quite hurried letter, to go into the important topic of instruction—what we teach and how we teach. Possibly I might encounter the editorial pen, judging from some remarks in your January number on agricultural colleges generally. You may be sure, however, that we do not err in giving too much "time and expense to instruction in the classics and military tactics."—They have their due share of attention, the former only to the extent that parents wish, and the latter occupying a very moderate share of time, but serving a very useful purpose in discipline and other respects. We claim to give to the farmers' sons of the State, at a very low cost, a course of instruction in all that a good citizen and farmer ought to learn.

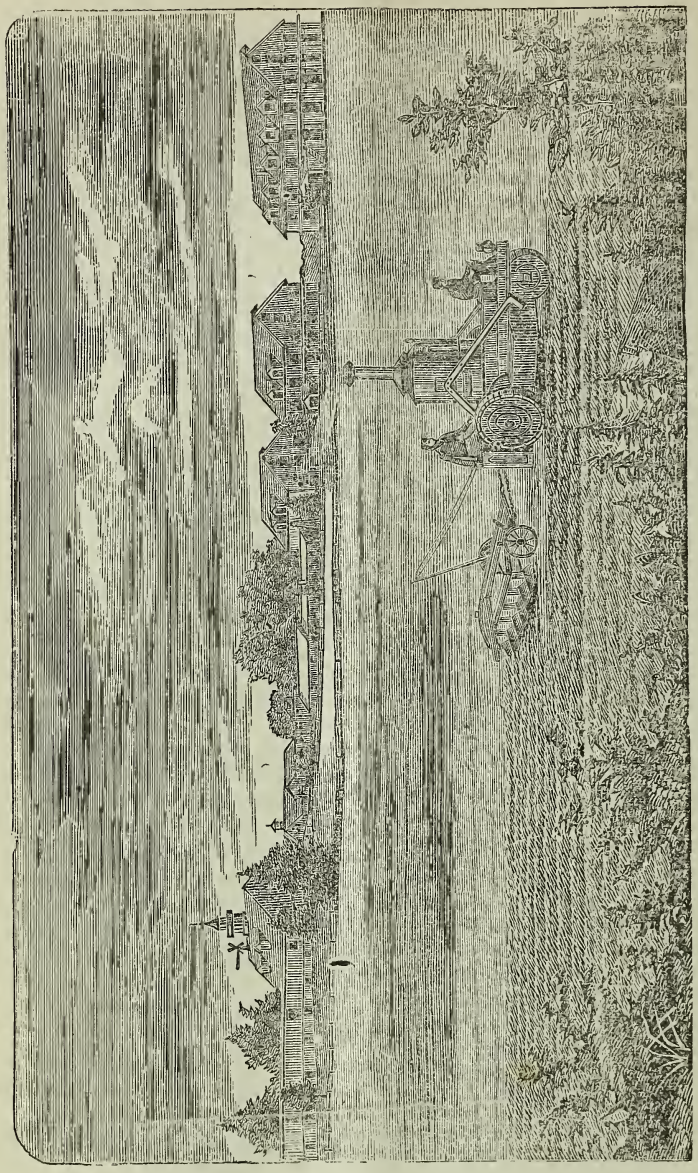
Concluding thus summarily, to be in time for the mail,

I am, very respectfully yours,

N. B. WORTHINGTON.

"Public Ledger" Almanac for 1873. GEO. W. CHILDS, Philadelphia.

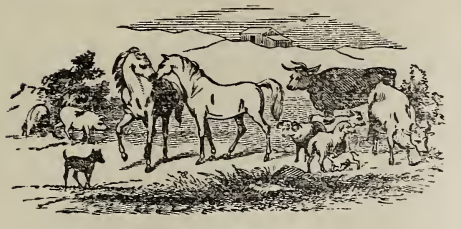
As an annual book of reference it is valuable. It is an encyclopedia highly useful to the people. The large number of subscribers of the *Ledger* are supplied annually—100,000 copies in all are printed. It abounds in facts. The first number of the *Public Ledger* was published March 25th, 1836, by Swain, Abell & Co. Mr. A. S. Abell, is the present editor and publisher of the popular daily *"Sun,"* of Baltimore, which has won such unprecedented success and influence as a daily journal.



STEAM PLOWING AT LANDRETH'S BLOOMSDALE FARM, WITH WILLIAMSON'S PATENT TRACTION ENGINE.—See page 41, 42 and 43.

DOGS VS. SHEEP.—Official reports shows in Ohio an annual loss of sheep of $1,000,000 in injuries—a loss equivalent to 6,000,000 pounds of wool, or a tax of two per cent. upon the total sum invested in sheep in that State. It is said that in two years, from 1868 to 1870, Illinois sank from sixth to the ninth rank among the States in the number and value of its sheep, and this great falling off is attributed to the proportianate increase in the number of dogs, and the lack of proper legislation to prevent their ravages among the sheep. In Maryland the returns from five counties report over 1,000 sheep killed in one year by dogs.

Live Stock Register.



VALUE OF TROTTING HORSES.

The calender for 1872, has not yet been made up, but will show an increase upon that of 1871, from which we gather our facts. It shows that in 1871, there were 1,576 trotting and pacing Races in the United States, representing over a million of dollars, in premiums and purses, beside the great value of the horses. The horses would average $1,000, each, and not less than three to each race, which would be $4,728,000, say $5,000,000 in horses alone, who have actually trotted in the several contests during that year. From this and other reliable data, we calculate the value of those in training, and exercising, but not contending in races, and those in the breeding studs, all united, would amount to not less than $15,000,000, being that sum invested in this country in trotting and pacing horses alone. Yet this grand total is confined to a limited number of breeders, as compared to the number of those who have the means, but who will not breed horses of improved stock, nor breed horses at all. We mention this fact, as a conclusive argument to prove the immense amount of wealth, that is lost to our farmers because of their want of energy, and enterprise in not to a greater extent availing themselves of this profitable source of revenue. Every farmer should breed horses, but as it is, only a few breed, and most of them, raise only a colt or so annually, from inferior parents, and half starve the colt until it is fit to "break," and they by a rapid process, break it sure enough, so that, the time and cost—such as it is—is litterally thrown away. A little more time, trouble and cost of feed, would produce a colt, from a highly bred sire and a good dam, worth $400 or $500. Two such colts per year, would be equal, to many farmers, to the net profits of their entire farms. So it is with cattle, and we subjoin an extract from the *Turf, Field and Farm*, showing the value of high bred animals and good keep, with cattle, and also an extract from the same excellent journal as to the progress made in rearing and training colts. It is marvellous, yet no more than is in the power of any individual farmer who has the energy and will and perseverance, to accomplish.

A Promising Aberdeen Colt.—Mr. A. M. Traver, Rhinebeck, N. Y., has a chestnut colt, Duke of Scotland, by Aberdeen, out of Pet, by Columbus foaled April 28, 1872, eight and a half months old, fourteen and a quarter hands high, that can show a 3:15 gait to halter. Who can beat this? Aberdeen promises to be one of our best trotting sires, and is proving himself to be a worthy descendant of Rysdyk's Hambletonian and the game old Widow Machree.

Short Horns in Kentucky.—Mr. Benj. F. Bedford, of Bourbon, one of the most successful short horn breeders in Kentucky, has twenty-seven animals, and at the head of this very select herd is Climax 5,453. Mr. Bedford sold last year twenty calves at an average price of about $240 a head, and has only two bulls remaining for sale.

FAST HORSES OF 1872.

The following is a list of trotting horses that have beaten 2:30 duriug the past trotting season:

Goldsmith Maid	2:16¾	Bay Eddie	2:27
American Girl	2:17¼	Thomas L. Young	2:27
Lucy	2:18¼	Rattler	2:27
Gazelle	2:21	Comet	2:27
Jay Gould	2:21¼	Chicago	2:27
Judge Fullerton	2:21½	Grace	2:27¼
Camors	2:21¾	Susie Parker	2:27½
Rosalind	2:22¼	Nettie	2:27½
Lady Maude	2:22½	Western Boy	2:27½
Huntress	2:22½	J. H. Burke	2:27½
Jennie	2:22½	Tom Keeler	2:28
Flora Belle	2:22¾	Dauntless	2:28
Kilburn Jim	2:23	Ripon Boy	2:28
W. H. Allen	2:23¼	Red Dick	2:28
Sensation	2:23¼	Phil. Sheridan	2:28½
George Palmer	2:23½	Gloster	2:28½
Jim Irving	2:23½	Nonesuch	2:28½
Lucille Golddust	2:24½	Moscow	2:28¼
Lulu	2:24¾	Jerome	2:28¾
Sleepy John	2:25	Rinkle's, Hambletonian	2:28¾
Susie	2:25	Star of the West	2:28¾
Mohawk, Jr	2:25	J. J. Bradley	2:29
Red Cloud	2:25	George Wilkes	2:29
Pilot Temple	2:25	Ajax	2:2)
Crown Prince	2:25¼	S. V. Serits	2:2)
Sea Foam	2:25¼	Beppo	2:2)
Ella Wright	2:25¾	Joe Brown	2:2)
Derby	2:25¾	John H	2:2)
Morrissey	2:26	May Howard	2:2)¼
Byron	2:26	St. Elmo	2:2)½
Lady Blanchard	2:26¼	May Davis	2:2)½
Lydia Thompson	2:26¼	Strideaway	2:2)¼
Honest Dutchman	2:26½	Handy Andy	2:2)½
Ben Flagler	2:26½	Cattaraugus Chief	2:2)¼
Grace Bertram	2:26½	Doubtful	2:2)¼
N. Star Mambrino	2:26½	George	2:2)½
Grand Duchess	2:26½	Lady Ross	2:2)¾
Charlie Green	2:26¾	J. S. Young	2:2)¾
Lucille	2:26¾	Sentinel	2:2)¾
Mack	2:26¾		

Manure from Sheep.—It is said that one hundred Merino sheep, with plenty of bedding, will, during the ordinary feeding time in winter, produce about forty-two horse wagon loads of manure, which is far more valuable as a fertilizer than that of either horses or cows.

CUT FOOD FOR SHEEP.

The editor of the *National Live Stock Journal* has been making some experiments in relation to cut food for sheep, and says:

"Some sheep farmers have discouraged cutting fodder for sheep, asserting that the teeth of these animals are equal to a Burr-millstone, and that they will eat and grind it as well without cutting. But we know these to be quite randon assertions, ignoring the commonest facts and habits of sheep. It is well-known that the sheep, of all our domestic animals, most relish fine fodder. Sheep take infinite pains to select the finest parts of the grasses—the heads, leaves and fine branches of clover, leaving the main stalks in their racks untouched; while cattle and horses will eat all alike, if of good quality.

We remember that a noted farmer in Central New York, made a very strong statement at the State Fair in 1864, about cutting for sheep as a waste of time and observing that they did not eat it as well after as before cutting. This led us to experiment to test the correctness of his statement. We took fifty pounds of early cut and nicely cured timothy hay and fed it to sixty thrifty common sized medium wooled sheep, in clean racks. After giving them longer than the usual time to eat it, we found twelve pounds of fragments left. The next day fifty pounds of the same hay, cut short, was fed to them, and after some length of time for eating, gathered up everything in the racks, found only two pounds, and this composed of the longest bits of hay.

We made also a comparative experiment with clover hay, corn stalks and straw, and found the saving as great in proportion. In the case of corn stalks, they would eat nearly all of them after cutting one-eighth inch long, the butts being cut into thin shavings, the tough hard rind broken into shreds; while in the uncut state, they would only eat the leaves, tassels and fine parts, leaving the stalk almost entire. We tried with cut feed of various lengths, and found that the shorter it was cut the cleaner they would eat it. Invariably the longest straws were left. Sheep waste more feed than any other of our domestic animals, and we found practically, that no other animal is benefited so much by cutting its fodder as the sheep. The principal saving in cutting is that it is all eaten and therefore the animal appears to eat less. It is an excellent plan to mix hay and straw together after cuting, or they may be mixed before cutting. In this way sheep will eat nearly all the straw, and keep in good condition.

By cutting, food of different qualities may be mixed together and thus save all. It is then in a convenient form for mixing in bran, middlings or meal. Sheep may be wintered in fine condition on straw cut and mixed with a small portion of bran or meal. Two quarts of bran, or one quart of meal to the bushel of straw, we have found to keep sheep and other stock in good condition. We have cut the fodder for all our animals for many years and know that it pays, but for no animal does it pay as well as for sheep."

THE COW.

The French cook in giving directions how to cook a rabbit began by saying: "First catch the rabbit!"—it seeming essential, in his mind, that the rabbit should be caught before it was cooked. So we, in discussing the question of butter-making, will say—First get the cow! This is an important step, and more important than many—for you can not make good butter unless you have a good butter cow to begin with. Do you ask what breed is best? We answer, it does not make any difference what breed, if you only get a good butter cow. There are good cows among all breeds—more among some than among others—and only experience—a practical test—can decide the value of a cow for making butter. She may not give a large mess, but she *must* give a rich mess, and it must have a clean sweet flavor. We see that the farmers of some sections seem to understand this point. They have in Otsego county, along the Unadilla river, to some extent at least, introduced Devon blood, and we find among the butter makers there fine herds of grade Devons. They are not generally reputed the best butter cows, as a breed—most preferring the short-horns and Jerseys. But the short-horns are not adapted to hilly regions. For this reason, perhaps the Devons crossed on the best native stock, with a sprinkling of Jersey blood, are the best for that section.

But whatever blood you introduce, be sure it is from a milking family. This is the main point to look at. Get males from the best milking families—males strongly marked with the characteristics of a good milking family—and use no others. Cross these only with your best butter cows, and if you have cows that have come from good native butter stock, so much the better. But never trust to grade bulls, however fine, unless in rare cases, where you are sure of the native stock having proved good for several generations. When you use a grade male, you never know what blood you will breed from. He is just as likely to transmit his bad qualities as his good ones, and give you only worthless, or next to worthless stock. You cannot afford to take the risk of trusting a grade bull, if you are trying to improve your dairy stock. Therefore, we say, use none but pure bloods. It is better to pay a little more for them than to run any risks—but be sure that you get a full blood from a good butter family and with a good pedigree—for without a good pedigree, he may prove as worthless as a grade.

With a good butter cow and proper care and feed, you are in a fair way to make good butter; but without such a cow, your case is hopeless. No amount of care and feeding will make a good cow out of a poor one. But you may greatly injure, if you do not spoil, a good cow by neglecting to give her an abundance of clean, sweet food and pure water. She is a machine for working up raw materials into milk, and she can not make good milk out of poor materials. The milk, and the butter or cheese made from it, will be flavored more or less with the food which the cow eats. See to it that she has sweet, nourishing food and pure water in abundance.—*Utica Herald.*

The Poultry House.

SAVE THE BEST FOWLS FOR BREEDING.

It is the worst possible policy to kill all the best and handsomest fowls, and save only the mean and scraggy ones to breed from. This is precisely the way to run out your stock; for like tends to breed like, and the result is, that by continually taking away the best birds, and using the eggs of the poorest, your flock will grow poorer and poorer every succeeding year.

It would seem as though this was too plain to be insisted upon, but, in fact, "line upon line" is needed. It is the crying want of poultry upon the farms the country through—this careful and intelligent selection of the best for breeding.

Nothing is lost by a little self-denial to start with. The extra pound or two of poultry flesh that you leave on its legs, instead of sending it to the market, is as good seed, and will bring forth tenfold and twenty-fold in your future broods.—Save your best stock for breeding.—*The Poultry World.*

CHEAP POULTRY-YARD.

Set posts firmly in the ground, six feet high, eight feet apart. Take number 9 wire, and stretch from post to post outside, fastening with staples made of wire driven into posts. Place three wires one inch apart, one foot from the ground; another three at three feet ten inches from the ground; another three at top of posts. Take common laths and weave in, leaving three inches space between sides of each. This makes the fence four feet high. Then take other laths, picket one end, and chamfer the other like a chisel blade, and interweave among the top wires; then shove the chamfered edge down beside the top of the bottom lath, lapping under wires two inches. This makes a cheap, pretty, durable fence, that is seven feet and ten inches high, and fowl-tight. Wires should be left somewhat slack, as interweaving the laths will take it up.—J. W. LANG, *in the Poultry World.*

TURKEY RAISING.

Farmers who live in sparsely-settled districts, abounding in large dry pastures, can afford to give the time of a faithful and intelligent lad the whole summer through, to be devoted exclusively to raising turkeys. The young broods must be watched as constantly as ever a shepherd watches sheep in a region infested by wolves. Every night, or during the day, on the approach of rain, they must be driven to a roomy shed with a tight roof. The mother birds, and the young, can be soon trained to being driven as easily as cows are driven to pasture. Give good forage ground, and keep out of rain and dew, and success is almost certain.—*The Poultry World.*

The Department of Agriculture. Its history and objects. By JAMES M. SWANK, Chief Clerk of the Department.

This little book gives a historical sketch of the Department of Agriculture, as well as the work done by the same from its organization.

THE DAIRY.

FROSTED GRASS BAD FOR MILKING COWS.

We have been told by one of our most careful dairymen, that he has found his cows invariably fall off in their milk, when they have free access to frosted pastures. Late in the fall he husbands the thrift and general good health of his cows, obtained from the summer feeding, and tries to *keep up* their status. On cold nights they are kept in the barnyard, and have besides their barn, some sown corn-fodder or a little hay, and are not turned out in the fields till towards mid-day, when frost is melted. It is always better economy to keep cows up to their milk and in good condition, than to recover them after they get below, or fall off. While a cow well wintered is said to be half summered, it is also true that a cow well summered, and up to the time of going into winter quarters, may be said to be half wintered.

We recommend our dairy farmers to experiment a little with cotton seed meal. While promoting the secretion of milk, it also keeps up nutrition.—*Practical Farmer.*

HOW EASILY BUTTER IS SPOILED.—A farmer's wife writing to the Ohio *Farmer* says: "Of all the products of the farm, butter is most liable to be tainted by noxious odors floating in the atmosphere. Our people laid some veal in the cellar, from which a little blood flowed out, and was neglected until it commenced to smell. The result was, that a jar of butter which I was then packing, smelled and tasted like spoiled beef." Another lady reader observes that there is a filthy, stagnant water a few hundred feet from their house, from which an offensive effluvium would be borne on the breeze directly to the milk-room, when the winds was in a certain direction, the result of which was that cream and butter would taste like the disagreeable odor coming from that pond. As soon as the pond was drained we had no more damaged butter.

EFFECTS OF ATMOSPHERIC CHANGES IN BUTTER-MAKING.—The author of the "Ogden Papers" says in the *American Agriculturist*, by way of explaining why he gets 90 cents a pound for his butter: "Of course, the fact that I have only Jersey cows has much to do with it, but with the same animals I was never able to prevent frequent changes in the quality until I withdrew the milk from the changing influence of the atmosphere, and subjected it to the uniform temperature of spring water—avoiding the access of atmospheric influences almost entirely." We think the result would be quite as satisfactory to set the milk in pans that will hold an entire milking, running water under and around them, and regulating the atmosphere of the room at about 60 degrees.

CENTRAL UNION AGRICULTURIST.—A standard agricultural monthly, edited by Jeremiah Behm, Omaha, Nebraska—price $1.50. The January number commences its fifth volume, and is well stored with matters of interest to every tiller of the soil. Price $1.50 per annum.

HORTICULTURAL.

TO ACCLIMATE THE APPLE, PEAR AND OTHER FRUITS IN THE SOUTH.

We would call attention to the following sensible and somewhat novel views of a correspondent of the N. O. *Picayune*. What he says of fruit growing in Louisiana equally applies to every State in our wide-spread country, with its diversified climate. In our Southern and Middle States, too little heed has been given to those fruits which suit a particular soil or climate, by those who set out orchards. It cannot be denied the fruit which is superior in the North, is rarely good in the Middle States, and *vice versa*—as for instance the superb New Town pippin on the Hudson river is worthless in Southern Maryland. What Rusticus says about acclimating the Northern apple and pear, by sowing the seed, is probably correct, and certainly, by a general attention to this course, many very valuable sorts would be obtained which would suit the seasons of the particular section where they were thus originated. We have long urged upon amateur fruit growers and others the importance of originating more new varieties of all fruits by planting the seeds, and by hybridizing. In this way the North and Europe have produced so many valuable sorts.

"It is an opinion generally received in Louisiana and other Southern States, that the climate here is not suited to the production of most of the fruits of the so-called temperate regions of the earth, and more particularly so of the apple and pear. Heretofore there has been good ground for that opinion, because the attempts to raise such fruits here have been made with Northern varieties and Northern-raised trees only, and the results have been failures in every case, except with the varieties that ripen very early; and such will continue to be the result so long as the Southern people depend on Northern varieties of those fruits for their orchards. But if the attempt to acclimate fruits be made here by planting the seeds, the results will be different. In no other way than by planting the seed can Northern fruits be acclimated in this and other adjacent States. By planfing the seeds of fruits, experimental orchardists in all civilized countries except our own South obtain new varieties. And the same thing has been done here already by amateurs; but on account of the little interest that the majority of the Southern people take in fruit culture most of the varieties perish when the original trees die.

"Ittmust not be supposed that every apple or pear tree raised from the seed will produce good fruit, for fully ninety per cent. of such trees will be worthless, except for stocks to graft the good varities on, One law of vegetable life and habit must be kept in view in attempting to produce fruit adapted to a particular locality, or, in other words, to acclimate them, and that is, the seed *propagate the species only, while the leaf-bud propagates the individual.* Hence the reason for grafting or budding from trees that produce good fruit on stocks of the same order or family. The resulting branch or tree growing from the inserted or adapted leaf-bud will always produce fruit similar to the parent tree from which the leaf-bud was taken, provided the soil be good, and the temperature of the ripening season be similar to that of the place where the parent tree originated. The length of time required for fruits to grow and mature varies with the varieties, but it will not vary from the general rule to suit a new locality from the place where the varieties originated. The variety that requires four or five months to come to maturity where it originated will require the same length of time everywhere else; and it will require the same general climatic characteristics, or an approximation to the same at the ripening season in all localities where it may be transplanted, or it will not ripen at all. If the tree be of Southern origin, where the flowers expanded at the beginning of April, and the fruit ripened in September, and it should be transplanted to Canada by grafting a leaf-bud on a Canadian stock, the tree itself might withstand the rigors of the winter there, but the fruit would not ripen, as there would not be sufficient time between the flowering season and the autumnal frosts. And if a variety that originated in any of our Northern States or Europe that ripens in autumn, or the lato summer, be transplanted to the southern tier of our States, the fruit will be caught by our summer heat at the critical time, and either rot on the tree or shrivel up and drop off the tree, unfit for any use. Hence the reason why no Northern fruits succeed in the South except the very sorts. The ripening season of all cultivated fruits must be isothermal with the places where the individuals originated, or they will not succeed.

"The Atlantic Southern States have fine varieties of apples and pears that have originated there from the seed—the most of them being accidentol, it is true—and they are disseminated by grafting. In Louisiana there are several excellent varieties of apples and pears, the production of seed planted here, and what has already been done can be improved on, provided the people of the State will adopt the plan of planting apple and pear seeds in their gardens annually, and paying proper attention to the trees for a few years until they produce fruit—which, with the apple trees, will be about the fourth year—and then select the good varieties, and propagate them by grafting on those that produce worthless fruit. By a general adoption of this plan Louisiana can be made to compete with any State in the Union in the production of good apples. No part of the State is too far South to produce good apples or pears, and they can be made to grow and ripen alongside of the orange and banana. RUSTICUS."

THE APIARY.

Translated for the Maryland Farmer.

NEW PROCESSES FOR GATHERING HONEY.

TRANSLATED FROM THE FRENCH.

Mr. Victor Meunier, of the Academy of Sciences of Paris, describes the two processes for the removal of honey in the following terms:

1. Two experiments just made by Dr. E. Chairon, at Rueil, have met with full success. We will cite but one, the most decisive, tried on a French hive which had not been touched for two years, a hive stuffed with wax and honey, containing an immense swarm, weighing from 50 to 60 pound.

A large table-cloth is spread on the ground; in the middle of the cloth a plate is put, and on the plate is a handkerchief of fine cambric, upon which 10 grams of chloroform are poured. Then over the handkerchief and plate a wire net or dish-cover is placed. This done, two men lift up the hive and place it over the wire net, and quickly the corners of the table-cloth are folded over the hive, to prevent the deperdition of chloroform.

Almost instantly a frightful uproar is heard, the immense clamor of a whole community suddenly involved in an unheard and incomprehensible catastrophe.

"You can hear," says the inventor of the process, "a stormy noise having a great analogy with that of an engine in ebullition." After five minutes the tumult was such as to be heard at a distance of ten yards. It maintained itself at that pitch during about five minutes, then it lowered so rapidly that two minutes hence it had entirely subsided. A deep silence followed. Anyhow, the experimenters did not think it prudent to show themselves yet, and as an over-precaution, an additional dose of chloroform of four grams (62 grains) was slipped with a quick hand under the wire cover. After 5 other minutes, they determined to unfold the cloth and remove the hive. The wire cover was covered up with bees, from five to six centimeters (two inches) thick. Are the bees living or dead? They knew not. Some of the bees would make a slight move. They were spread all over the cloth, exposed to a full sunshine, and meanwhile the men proceeded to the removal of wax and honey. The hive was stuffed with it. A few bees that remained in the cells were asleep. Not one had escaped the anæsthesic slumber.

After remaining half an hour exposed to the action of the sun, the whole swarm gave signs of life. Three hours and a half later, all the bees had returned home. The next day they resumed their work.

2. The other process is one upon which Mr. Antoine, of Reims, called the attention of the *Society of Acclimatation* and of the *Society for the Protection of Animals*. Mr. Antoine assumed that he had found the means of subduing the bees without using either smoke or any anæsthesic substance.

"Within two minutes," he said, "having become docile and harmless, they will let you proceed to all operations, and then they will not be long to resume their work. Not one will be killed, injured or sick."

Acting as a delegate of both societies, the worthy Mr. Blatin went to the inventor's residence.

There were there seven mother-hives, containing each one from thirty to thirty-five thousand bees. One of these was selected by Mr. Blatin for the experiment.

Mr. Antoine went near it, squatted down in front of it, and hardly two minutes had elapsed when the assistants, who had kept themselves away at some distance, saw him remove the hive from its platform, lift it up, then turn it upside down, declaring that its whole population was tamed.

Directly he brought that hive to Mr. Blatin, and installed it, upside down, upon a little staved cask. Nearly all the bees had sought refuge towards the upper part of their habitation. Some few only were grouped at the base of the combs none seemed disposed to fly or sting.

An empty hive of the same size as the other was place on this one, edges coinciding, except on one side, where an aperture was managed by means of a bracket, that the emigration about to take place might be seen.

Tappings were then executed with the hands upon the exterior walls of the interior hive, (the one filled with honey and bees,) first at its top and then at its middle part. Almost instantly the bees began to ascend the empty hive, without disorder, in closely pressed groups. After seven or eight minutes, they had all abandoned their combs, and had crowded into the upper hive.

When the emigration was complete, Mr. Antoine, to show to his guests the queen, softly waved away with his uncovered fingers the heaped up crowd of bees, then he covered them with parts of his body. All had their usual vigor and activity. The *transhiving*, the removal of some combs, the artificial swarming, all that does not take more than ten minutes. Not a single bee had been hurt, not one had fled away.

Now, one thing remained to be done by the operator—to make known his method. Here it is, and the readers will see that it is one of great simplicity:

After having softly removed the straw cover that sheltered the hive, he taps near the top of the hive with a bent finger, first a little knock, then tappings gradually increase in strength and rapidity; then, he slaps with the flat of one hand, and, after half a minute, with both hands, always gradually increasing the noise so that the bees have no time to recover from their surprise and alarm. When this methodical tapping has lasted about two minutes, he gently lifts up the hive without shaking, and knocks about twenty more little tappings at the top. Then the hive may be turned upside down. What follows has been described.

Is not all this very singular?

But everything is marvellovs in the history of those interesting little bees.

GRAPE CULTURE.

GRAPE CULTURE—PROPAGATION, PRESERVATION, &c.

BY W. P. H.—WEST CREEK, N. J.

The vine is propagated by—layers, cuttings, seeds, budding, grafting, hybridizing, and from the green leaves of the vine ; so a Mr. Harris, of West Virginia, states to the New York Farmers' Club.—"His method is to give the leaf a quick, downward jerk, so as to get a good split from the green shoot ; they are then placed in sand prepared for them ; when in about fourteen days a bud and shoot will start from the stem of the leaf."

Layers are much in vogue with some, as it is supposed to bring fruit sooner than any other method ; but the plants so grown are not as long lived nor healthy in vine or fruit as the cuttings ; this last is in more general practice and very healthy, for if properly selected in point of vigor and durability is superior to all other practical methods. There is only one prime cutting on each shoot, and that is the one of the last Summer's growth, including the first five or six buds next the old shoot. The eye or bud should be large, the wood round, (never select a flatish one,) short jointed, texture solid and ripe. Cut off a quarter of an inch below the lower eye or bud, and one inch above the upper one.

These cuttings are tied at each end of the bundle, of about 25 or less in each, with the lower buds at one end evenly adjusted ; this end is to be dipped in clay mud, and then to be buried top end down at an angle of 45 degrees, with some loose litter thrown over the clayed end. High sandy soil and well protected from N. W. winds, are the best quarters for wintering cuttings. Never keep them in doors. November is the most suitable time for collecting cuttings ; they make a better and more healthy growth than if taken off in the sprihg. I find my vines winter better and have finer fruit by pruning in November. Take cuttings only from vines that have borne fruit ; the best are from vines that have borne their first crop.

Propagation from Seed.—Select the seed from the best kinds. The grapes should be well ripened and preserved in sand until March, when they may be planted in deep boxes filled with well-rotted sods, or old hot-bed bottom. Handsome box raisins will always yield a profitable supply of seeds for the propagator to select from. Some of our finest fruit and healthiest vines originated from this source. A very fair crop has been obtained the fifth year from planting. We have had them in four years. The young vines will need watering and partial shading the first Summer, and transplanting the following Spring. Grafting, inoculating and hybridizing are both tedious and uncertain ; and unless one is well posted, will not pay. Hybrids, as far as tested in this section, is a practical failure. Good cutting from Concord, Clinton, Hartford Prolific, Madeira, Catawba and Malaga, seeding from vines grown on our premises, give the best result. Some vines never do well after their second crop, while others continue to improve as long as taken care of. We always sulphur our vines and fruit, twice every Summer, and of course never know anything about mildew tuckeri, black-rot or any other disease, except a sudden disappearance after they ripen.

Would not sulphur prevent mildew and rot on the cranberry? There is a pleasant whim in all the Clinton grapes I have yet planted ; the berry is larger than I ever saw anywhere else, very sweet, and matures perfectly by the 25th of August. I think it would make here, an excellent wine grape. The preservation of the grape has recently been reduced to a positive certainty. Pack in tasteless sawdust, dry ; in boxes or kegs ; head up and bury pretty deep in a high, well protected quarter ; they will keep good until spring. Cranberries will keep—treat in the same manner. Care must be taken to remove all the rotten or bruised fruit.—*N. Y. Courier.*

THE PEACH CROP OF 1872.

Mr. Ide, Master of Transportation of the Philadelphia, Wilmington and Baltimore Railroad, has made a report of the number of baskets of peaches sent over the road and its connections for 1872.—The following figures exhibit the number shipped over the Kent county and the Queen Anne's and Kent Roads :

KENT COUNTY R. R.

Vandyke's	18,013	Lynche's	15,377
Massey's	49,165	Worton	12,836
Lambson's	39,821	Chestertown	9,750
Black	35,419		
Kennedyville	57,485	Total	246,460
Still Pond	8,594		

QUEEN ANNE'S AND KENT R. R.

Massey's	3,757	Carville's	146
Millington	22,118	Centreville	18,233
Sudlersville	15,101		
Coxe's	998	Total	68,180
Price's	7,827		

THE FLORIST.

FLORICULTURE FOR FEBRUARY.

The months of December and January were unusually severe—the thermometer ranging lower than for many years in this latitude—consequently very hard on vegetation and plants, even those within doors requiring the strictest attention to protect them from injury, even in the most secure houses. There is no work to be done out of doors, but ample employment will be found in the houses, in caring for the plants, which to keep in good order now require close attention.

Camelias will now be flowering fine; give them plenty of air, and syringe at times; give a top-dressing of good soil, and see they do not suffer for water.

Grafting may be performed, and cuttings put in if a young stock is wanted; repot such as need larger ones.

Azaleas will be showing buds and flowering; be careful in watering, and clean off the decayed foliage, if anyway rusty; this keeps them in better health, and keeps off the red spiders, which will soon spread over the whole stock if not constantly watched; syringe once or twice a week before coming in flower.

Soft wooded plants that have done flowering can be set aside, and those plants showing bloom be brought forward.

Greenhouse Bulbs, as Ixias, Sparaxis. Amyrilluses, Donathogalum, Tritelia, and such, set near the light; they do best near the glass, and flower much stronger if this is observed.

Gloxinias, Gesneras, Tydyeds, Plectopomas, Lillys—Put the roots in suitable soil, and be sparing of water till they appear to grow—be careful also, of too much water, otherwise the roots will rot; when they begin to grow, give more water.

Fuchias.—Forward the growth of these by giving a little liquid manure—cuttings may be put in, and pot off such as may need larger pots.

Roses will now begin to grow; tie the plants up to neat sticks, and keep them clean from insects; as the young are frequently infested with the green fly, to destroy which fumigate with tobacco occasionally, and give a syringing afterwards.

Verbenas, and all bedding plants, may be forwarded and cuttings put in; keeping up a succession of stock ready for planting out, as *Pansies, Phox Drommondii, Sweet Allysum, Mignonette, Salbias, Ageratum, Petunias,* which have been raised from seed, if large enough, put in small pots, ready for the time of planting out in the open ground.

Hot-House Plants in general will now begin to show and make a fine display; many will need repotting and looking over, as *Marantas, Alocasias, Dracenas,* and the finer foliage plants; many can be increased by roots, as also cuttings, like *Begonias,* which of themselves are a beautiful tribe of plants.

Cactuses.—Those about to flower have tied up neatly, and repot such as need it—give more water as the season advances, keeping them near the glass.

Carnations, and all herbaceous plants, may now be looked to, and the stock increased by cuttings, or dividing the roots; if raised from seed they will need potting in small sized pots, and should be placed in the coolest part of the house.

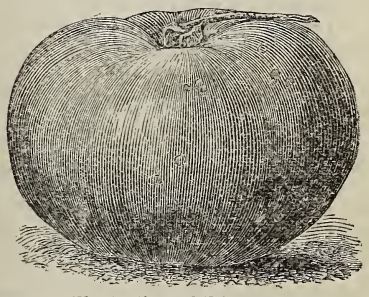
SOIL FOR FLORICULTURE.

Most flowers, if not all, succeed best in sandy loam, made rich by the addition of well-rotted manure, which should be thoroughly mixed with the soil. Such a soil, thus prepared, will not become hard or baked, but will become loose and porous. It will not only afford the small and tender plants a chance for existence, but it will also enable them to perfect themselves with vigor and beauty.

If your garden is composed of a stiff, heavy soil, a good dressing of sand and manure will assist it wonderfully in the way of plant development; and some of the most delicate plants that would not succeed at all in such soil, in its unimproved condition, will, after such preparation, flourish in the most satisfactory manner.

A heavy soil is greatly benefited by being roughly spaded up in the fall, and remaining in that condition through the winter. In all cases, before sowing the seed, it is of the utmost importance that the soil should be thoroughly pulverized. This important particular should never be overlooked.—*Boston Journal of Chemistry.*

CANADA VICTOR TOMATO.



The above illustration of this tomato we have received from Mr. Jas. J. H. Gregory, of Marblehead, Mass., who states that the seed were obtained from a gentleman in Canada, who had given a glowing description of the same—they were tested in his experimental garden, and the result of his test was as follows—we copy from his circular:

"About the time the plants were put out, left for Europe; when I returned my foreman called my especial attention to this new tomato, which *had ripened its fruit several days earlier than any other kind of the twenty-five varieties I was growing scattered over my different farms.* The fruit was not only the earliest of all, but of large size and exceedingly symmetrical and handsome, while in ripening it had no green left around the stem, a great fault with many kinds otherwise good. The fruit was heavy, full meated and rich, between round and oval in shape, and red in color; it was distributed very evenly on the vines.—A correspondence developed the fact that the gentleman who sent it had for the past three seasons been testing it side by side with other standard varieties, and found that it ripened six to ten days earlier.—This fact may in part be accounted for by its having been grown for years in a northern latitude, while the utmost care had always been used in the selecting of seed stock."

We refer to the advertisement in this number of the *Farmer.*

LADIES DEPARTMENT.

A CHAT WITH THE LADIES FOR FEB'Y.

BY PATUXENT PLANTER.

This month is usually of variable weather. We often have our coldest days in February, while others are as mild and balmy as spring. As the poet says:

"Midwinter reigns;
The fields are deeply hid by snowy robes,
That shield the tender turf from icy death;
The woods filled in with fleecy flakes looks drear,
And thro' their whitened waste, the chopper's stroke
Echoes and re-echoes in the silent air.
The streams are firmly bridged with crystal sheets
That spread o'er ponds and lakes a frozen veil.
The liquid metal in the tube of glass
Contracts and slowly sinks within its bulb,
Foretelling cold and biting blasts that change
The breath to hoar-frost when it leaves the lips.
Anon, a change, and warmer winds blow up
A promise of the spring-time, yet afar,
And fails ere yet we fairly see the bow.
And faith looks out through doubly frosted bars,
And sees the future in the lately past."

This month is remarkable for its memorable days, such as *Ash-Wednesday*—the beginning of Lent; *Candlemas* day, so called from the church candles being blessed on this day, the 2d of the month; the 14th, *Valentine's* day, and the 22d, *Washington's* birth-day. There is a superstition prevailing, all over Europe about Candlemas day, of which the English rhymer says:

"If *Candlemas* day be clear and bright,
Winter will have another flight;
But if Candlemas day be clouds and rain,
Winter is gone and will not come again."

Valentine's day is one when young folks make merry with valentines, and years ago was the occasion of much fun and harmless amusement; but of late, has been so vulgarized that wit is lost sight of, and all pleasant amusement jeoparded, so the custom of sending valentines is more honored in the breach than in the observance. But the old, old poetic idea is still harbored in the youthful mind that the feathered denizens select their mates for the year. Sometimes they have a cool time for their billing and cooing. However, the hail, storm and snow, perhaps serve to show their devotion the more. The old verse sings:

"The tuneful choir in amorous strains
Accost their feathered loves;
While each fond mate, with equal pains
The tender suit approves."

In our last chat I spoke of *smilax*. It is said that 20,000 feet of greenhouse room is devoted to its growth alone, at New York and Boston, besides thousands of plants cultivated by individuals. "No plant is better fitted for house culture, as it grows in any temperature from 50 to 75 degrees, and does well in comparative shade."

Every lady must have her bed of violets. Robert J. Holliday, Baltimore, has this season brought out one of the finest ever propagated; it is called the "*Marie Louise*,—prolific, large and fragrant, rich in bloom, often with a red streak through the centre of the flower. Among other new flowers the White Sage, a new variety of the Salvia Splendens, the old Scarlet Salvia, now white as snow, is highly recommended; it was originated by Mr. Chilty, of Paterson, New Jersey.

The fashion this winter in London and New York has been to make dinner-tables at fashionable parties regular bowers of flowers and ferns. In London, lately, at a dinner, the flowers cost $1,000, and peaches $5 each. We are fast getting back to the flowery days of old Rome. The plainest dinner-table for only a half dozen invited guests must be adorned with a large boquet or pyramid of gay flowers and evergreens, and at large dinners, a small but beautiful boquet is laid at the plate of every lady. Flowers have become a matter of necessity—hence the importance of their extensive home-culture. An entertainment now-a-days, without a profusion of flowers, would be as salt without its savour, or a dinner without meats. Talking of *fashion*—it is pleasant to the sensible, sober thinking to hear that long skirts are going out of fashion in Paris and New York, and that "sober, second thought" of woman has seen the folly of the uncleanly custom of dragging the muddy ground, or sweeping the filthy streets with the trails of costly dresses, carrying muddy, slopped skirts over costly carpets or clean white matting.

This month is the peculiar season for the exercise of *charity*. It is the closing of winter, yet

* * * * * "Still the blast
Howls through the forest loud;
Still on the gale comes driving fast
Chill winter's snowy shroud."

The winter's store of provisions and the fuel are running low in many an humble cot and home, and the clothing and shoes are the worse for wear, which had been provided by the honest toil and sweat of the industrious but poor laborer, during the past year, and which stores have, by unforseen demands or by sickness, come short of his fond expectations, and thus the family are reduced to want and suffering at this inclement season, when work is not to be had, Thank God! there are few such cases in our rural districts, which are blessed with plenty of the substantial comforts of life, but there are hundreds of such objects of compassion in our cities, especially among the improvident colored race, and the ignorant foreigners. Let us then relieve the poor, letting not our right hand know what our left hand doeth. Do not let us stifle our charitable thoughts and acts by saying, "they deserve it; the man drinks or the woman wastes; they are not frugal; they are lazy and worthless." Remember the children; remember how many have been reclaimed by a little kindness, and let each one, according to his or her ability, become a *Rodolph*—a terror to those who have no excuse for crime, and a benefactor to those who are becoming criminal by extreme destitution. Let us heartily join, by word and deed, in Pope's Universal Prayer:

"Teach me to feel another's woe,
To hide the fault I see;
That mercy I to others show
That mercy show to me."

There is nothing out of doors worthy to talk to my lady friends about, except to challenge their admiration, and ask their love for my favorites—the *Evergreens*—so beautiful and cheering at this season, when all else is sere and brown, or a stricken, dreary waste. Look, my fair friend, at the ivy as it creeps on yonder wall, tenaciously clinging, defiant, to the howling tempest; there you see love's *constancy* conspicuous in the adversities of life. See the humble Box, pertinaciously pushing its evergreen branches through the snow-drifts, like some poor innocent, with evergreen hope in her heart, struggling against the drifts of trouble, and the opposing obstacles which a cold

and heartless community have heaped around her.—Behold, too, the Yew tree and the Hemlock, like mighty pyramids, rising from the ground to a lofty height, covered with icicles, like hugestalactites, that glitter in the sun as huge diamonds, emeralds and rubies.

Though their limbs are weighted down with the jewels of the Storm King, they stand erect like giants prepared for battle with the elements, defying their power, as they swing their might limbs about, scattering in fragments the glittering baubles with which they are encased. Is there not something in this winter scene to admire, and make us love the evergreen tree, shrub and vine? Can you look on, lady, and say you do not love evergreens—beautiful emblems of immortality? In a few days the chaste, lovely snow-drops will appear; perhaps you will find them peeping out of the snow, like little children peering out, at early dawn, from snowy sheets. What says the poet?

"Already now the *snow-drop* dares appear,
The first pale blossom of the unripened year;
As Flora's breath, by some transforming power,
Has changed an icicle to a flower;
Its name and hue the scentless plant retains,
And winter lingers in its icy veins."

WHAT IS THE USE.

What is the use of trimming a lamp,
If you never intend to light it?
What is the use of grappling a wrong,
If you never intend to right it?

How dreary would the meadows be
In the pleasant summer light,
Suppose there wasn't a bird to sing.
And suppose the grass was white.

And dreary would the garden be,
With all its flowery trees,
Suppose there were no butterflies,
And suppose there were no bees.

For the Maryland Farmer.

AUNT SALLY ON FARMING.

"Good Morning, Aunt Sally! I'm glad to see you; I want to write something about *farming,* and now just tell me your experience, and I'll write it down."

"Well, now," said the old lady complacently, "are you in earnest? and why do you wan't to write it down."

"For the benefit of the ladies in general, but particularly for the *amusement* of the *Editors of the Maryland Farmer.*"

"I declare! if it will do the poor wimen any good, I'll tell you all I know, for dear knows they ought to have a chance to learn what they can. I've a mighty poor opinion of the men-kind, I tell you; therse my Jo, now, what would he do without me? true, Jo's a blacksmith, and gets a sight of work to do that way, but between you and me, that's all he's fit for. I tell's him, you stick to the smithy, I'll tend the Farm. You see, the farm's mine; when mother died, sais she, Sally never do you let any man get the upper hand of you, about this farm, says she, there aint one of them to be trusted from Adam down, have the say about it yourself, *and never let him forget the farm's yours*; my mother was a smart womon, and I've always followed her advice. Did I ever tell you what sot her against man-kind so?"

"No, Aunt Sally; I don't think you ever have, but just now, I want to know about farming."

"I know you do, and I'm going to tell you directly, but as I was saying about mother, she raised a splendid lot of turkeys the year after she was married, and father he insisted he should take them up to the city, and get a big price for them, he said he could sell them hisself, and that would save the commission; he talked and talked a good while, before mother give in; you see father had never been to the city, and she was most affraid he would get cheated; but finily she got father ready, and she got the turkeys ready, (forty nice, fat turkeys fit to grace the table of a king—poor mother used to say when she told about it,) and they all drove down to town, and she sot up in the cart at the foot of the old bridge, and saw, first the turkeys, then father, safely stowed away in the boat, and she went back home to wait. After two weeks she was getting right uneasy; suddenly one day, father walked in, 'La, Jake!' sais she, 'what a scare you gave me, when did you come? what did you get for the Turkeys? Did you buy the furniture?' and a half dozen more questions as fast as she could speak, finding he did not answer, she looked up at him—

'Jake, what is the matter with you?'

'Nothing,' sais he.

'Then why don't you talk,' said mother, 'dident you buy my furnuture?'

'How could I,' said father, 'when I lost the money.'

'Lost the money you sold my turkeys for,' screemed mother, and she was so stunded like, she just sot right down, and sobbed, and sobbed; after a good while, she wiped her eyes and said: Jake, I don't blame you, I expect you did the best you could, but I am so disappointed, we haint much in the house, and I thought that money would buy some nice things, but me must wait till another year. Now tell me all about it—

'Well Sally,' sais father, I warnt to blame at all, as you'll see when I tells you about it. I sold the turkeys for two dollars a piece, I was mightly pleased, and after I got back to the boat, I sot down and counted it over—eighty dollars—some men come along just then, and sot down on the wharf close by the boat, and one of them was the smartest man I ever saw, he spit fire out of his mouth, pulled feathers out of his sleaves, put an egg under his hat, and when he took it up it was a grown chicken. I got up and went closer to him,' said he, 'mister can you do this?' and he began to pull ribbon out his mouth—blue, green, yellow—here is some, Sally, I brought to show you!

Mother did not offer to take it, she only said, 'go on Jake.'

'Well, you see, there was a good many people around, one bet he could do one thing, and one another; a man put his watch under the hat, the man bet five dollars it warent there, but when they looked, it was, so he paid the money. Just then, he saw my pocket book, I had kept it in my hand all the time'—sais he, 'you put your pocket book under the hat, I'll bet you five dollars I'll tell just how much money you're got in it.'

Said I, 'no you cant.'

Then they all laughed and said I was afraid, and called me green; but the man said I was not green at all, and he told me just to fix it myself, no one should touch it he said; so I put the pocket book under the hat, and held my hand on it, you see; I did not like to be laughed at, and I wanted the five dollars, the man counted ten slowly, I raised up the hat the *pocket book was gone;* at first I kept looking, and they all helped me to look; some said, I never put it there; some laughed at me, the man said, *I was to be pitied;* just then I saw Capt. Adams coming, I went to tell him about my loss, when we got on the boat the men were all gone; after the captain heard my story he busted out in a big-ha-ha-ha; says he, Jake, you are the biggest fool—

'Indeed you are,' said mother looking him straight in the eyes; 'nobody could have made me believe it, but yourself. I shall never trust *mortal man* again—and you shall always be called *Turkey Jake,* to remind you of your folly; and the name stuck to him as long as he lived. Manys the fight, and fuss, he's had about it, but twas no use, he was *Turkey Jake* to the end of the chapter. So you see mother had good reasons for attending to her own affairs, and she brought me up in the same way; when Jo and I got married, she said, he could have a *home on the farm,* and help work, but I was to have all the say about it, because the farm was mine. Jo said, that would suit him, for he was a blacksmith, and he could build a shanty acrost the road, and get all the work he could do; but some how it dont work well; Jo's an obstinate ungrateful creature. I tell him you stick to the smithy, I tend the farm, but I want to hire the men to work, and Jo pay off, but he sends them back to me saying he don't tend the farm. I want to buy some manurs, he says we ought to raise enough on the farm; tells me what he reads about, the value of ashes, of compost heaps, and *save alls;*' says that mixed in the barn-yard ought

to be enough manure for the farm; I just told him them men that writ them papers dident know any more about farming than he did; its easily enough to write about it, but when it comes to hard work its something else, I tell you; so Jo goes off and says, then Sally don't ask my advice any more.

"I cant tell Aunt Sally how you make out to get your farming done." "Oh, after Jo's agrivated my life out of me, he highers hands, and the crop soon all planted, and we generally keep a hired man all crop time, so I manage to get along after a fashon."

"Why! Aunt Sally, what do you do? it seems to me the hired man and Uncle Jo must do all the work, I thought you said you tended the farm."

"So I do; why, you are as bad as Jo; he never thinks I do anything; but when it comes to nussing the children, milking the cows, cooking three meals a day, washing and ironing, making and mending the clothes, I tell you, I'm buisy from morning till night."

"I should think you were; I don't wonder you can't attend to farming."

"But I do; I tell you I never neglect the farm; why it supports the whole family; Jo says its the smithy, I say its the farm, and I ought to know; we get our wood, our corn, our meat, keep the cows, raise the potatoes and cabbage, and turnips; so don't you see its the farm supports the family—but I can't convince Jo, say what I will."

"What, does Uncle Jo say he's not an unreasonable man?"

"Well, you know, men are all alike, they will make their own side good, and are great on augument."

"What does he say?"

"He says it costs more to cut and haul the wood than coal would cost, and the wood will bring a good price on the railroad; that we have to sell part of our crops as soon as it comes off, to pay expences, and then have to buy at the end of the year, that the money paid for manurs, would more than buy our cabbage, potatoes and turnips, that the hogs cost more than the meat; in short, he wants me to rent out the farm; he says he belives in every one following the trade that he's suited for; he says, he knows he's a good blacksmith, but would make a poor farmer. I know better, its just because I will have my say about the farm, so we always end just there; and he says, 'Sally, don't ask me to pay your debts,' and I'll leave that to you, if it is'nt ungrateful after I suported him on my farm for twenty years, not to want to pay off some little bills I have to get charged sometimes. Jo's queer about money, he never give's me a cent without I ask for it, and then he always wants me to say every little thing I want to buy, that always maks me mad, so I took to getting things charged. Jo says, he takes pride in wearing his old clothes until he can pay for new ones, but when I want a new dress, I get it and have it charged to Jo, for I know something else he takes pride in besides paying his debts, so say what he will, he's sure to pay the bill."

"But, dear me," said the old lady, hastily gathering up her wraps, "yonder's Jo, what will he say when he finds I'havent been near the store yet."

"Dont go, Aunt Sally, you havent told me a single thing about farming."

"Indeed, I have told you all I know! and there aint many men can beat me at farming neither."

"Come in, Uncle Jo," I said kindly, for the old man was quite a favorite of mine. I kept Aunt Sally this morning, to tell me what she knew about farming."

"I guess she told you," said the old man chucking, "she can talk enough about it, but you'll find out it don't amount to much after all; Sally's good at planing, but some body else must execute. I guess she's a good deal like them wimin I read about in the papers, they would set everything to rights, if they could get the reins in there own hands; now I would just give them the whole length of the rope, *there would be no danger*, they'll never set the world on fire, it would all end in smoke.

WICOMICO.

CALENDAR.—From Will. H. Lowdermilk, a calendar for 1872, of the "Printing House," Cumberland, Md. gotten up in a very superior style of typography.

PAPER FRUIT AND BERRY BASKETS.—We call attention to the advertisement of S. D. Payne of Kasota, Minn., offering his newly invented paper baskets, which seem to meet with favor throughout the country.

LAYING DOWN LAWNS.

The following paper on this subject is furnished by a correspondent of the *Journal of the Farm:*

The laying down of a permanent lawn should be one of the first considerations with the person who desires to have a handsome country residence.

The plot selected may, if you please, be in grain. The first step will be to plow down the weeds and stubble at once. Roll it thoroughly and sow in buckwheat. Let the seeding be thick, say three bushels to the acre.

When the crop is two or three inches high, give it a liberal dressing of guano, superphosphate or flour of bone, with, say a bushel of plaster of Paris to the acre. The first shower of rain will wash these fertilizers from the plant leaves into the soil. The guano, etc., will of course have to be mixed with some other material, in order that it may not prove destructive to the young buckwheat. Good loam soil, just dry enough to separate well, and yet not be dusty, will answer. When the crop begins to bloom, turn it under deeply, harrow it thoroughly, sow the seed, then roll it well. If the season is at all favorable the grass will make its appearance before the winter sets in.

If trees and shrubs are to be planted, the planter should have two shallow broad boxes to put the soil in when digging the holes. The larger box could be used for the tree holes, the smaller for shrubs and plants. Every plant or tree should be set as soon after the hole is dug as possible, in order that the young grass may be saved from injury. If it is found convenient to delay the planting until the following spring, it will be all the better for the grass. Yet all the trees and plants should be got from the nursery in the fall, set in deep trenches and covered well with soil, so that they will be at hand for use, whenever the weather is suitable in the spring.

Of course different varieties of grasses will not thrive equally well upon all soils. There should, therefore, be great discrimination exercised in regard to the selection of seed. David Landreth, Esq., the well known seedsman of Philadelphia, has been experimenting for twenty-five years with lawn grass seeds, and has come to the conclusion that for general purposes for a permanent lawn the following mixture is to be preferred:

Herds grass or red top, Kentucky blue grass, orchard grass and sweet scented vernal. These seeds are mixed in due proportions, and sowed at the rate of two and a half bushels to the acre.—Mr. Landreth, in his *Rural Register*, says: "This approved admixture, designed to produce a permanent lawn, growing richer with age, and uniting beauty with utility, is alike adapted to the smallest town plot or extended lawn."

If we had the choice of time to prepare the land for a lawn, we would begin in late fall or early spring. Plow deeply and sow thickly with oats in spring, and when the crop begins to shoot into years, turn it under and roll at once to hasten decomposition. An application similar to that recommended for buckwheat ought to be made. This green manuring in connection with the fertilizers will make a very rich soil. The special manures are to be preferred because they do not contain any seeds of weeds.

By observing these simple directions, a handsome, permanent lawn is possible, almost anywhere.